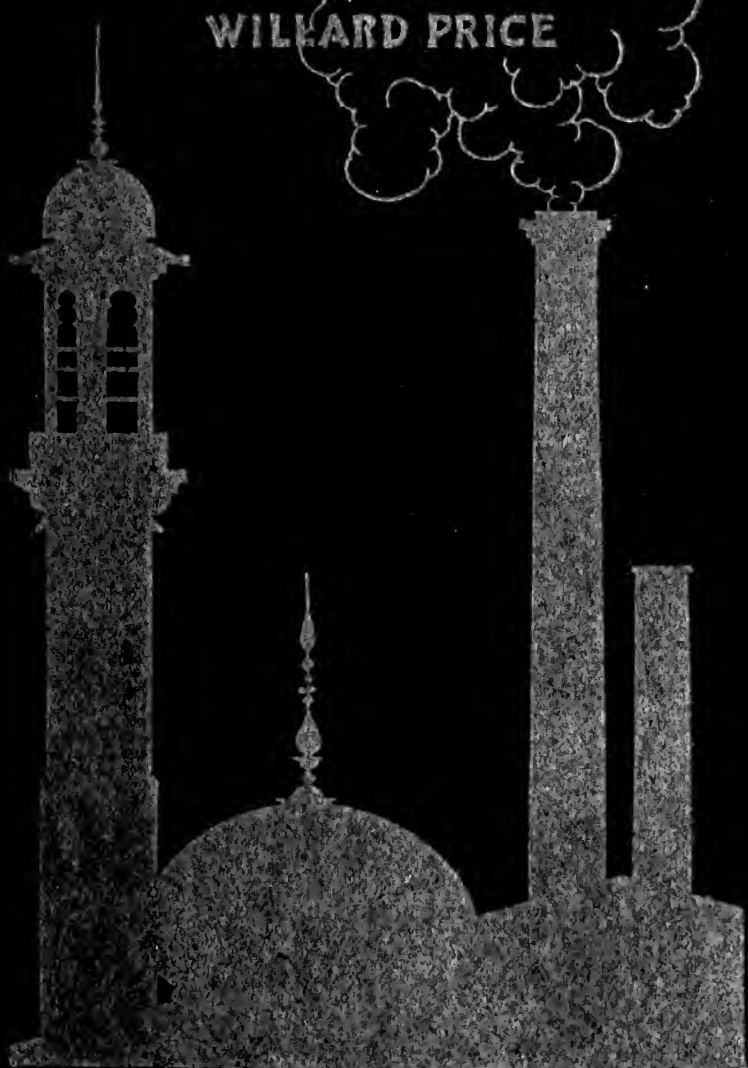


ANCIENT PEOPLES AT NEW TASKS

WILLARD PRICE



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Ancient peoples at new tasks



The once proud Incas are now slaves. Will modern industry still further enslave them and the other ancient peoples of the world, or will it prove a liberating force?

ANCIENT PEOPLES AT NEW TASKS

BY
WILLARD PRICE

NEW YORK
MISSIONARY EDUCATION MOVEMENT
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1918

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TO
JEAN PRICE

CORRESPONDENCE CONCERNING MISSION STUDY

Send the proper one of the following blanks to the secretary of your denominational mission board whose address is in the "List of Mission Boards and Correspondents" at the end of this book.

We expect to form a mission study class, and desire to have any suggestions that you can send that will help in organizing and conducting it.

Name

Street and Number

City or Town State

Denomination Church

Text-book to be used

We have organized a mission study class and secured our books. Below is the enrolment.

Name of City or Town State

Text-book Underline auspices under which class is held:

Denomination Church Y. P. Soc.

Church Men Senior

Women's Soc. Intermediate

Name of Leader Y. W. Soc. Junior

Address Sunday School

Name of Pastor Date of starting

State whether Mission Study Class, Frequency of Meetings

Lecture Course, Program Meetings, or Reading Circle Number of Members

..... Does Leader desire Helps? ...

Chairman, Missionary Committee, Young People's Society

.....

Address

Chairman, Missionary Committee, Sunday School

.....

Address

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FROM TEMPLE BELL TO SIX O'CLOCK WHISTLE

The East fell asleep to the chiming of medieval temple bells.

Now she wakes to the scream of the factory siren, the roar of modern machinery, the rumble of train and tractor, the booming of dynamite in her once silent mountains.

The industrial revolution, which during the last fifty years has shaken North America and Europe to their foundations, is to-day sweeping irresistibly through South America and the Orient. Simple home industries are being supplanted by complex community industries. Grandmother's hand-loom has gone to the attic. A thousand power-looms whirr in the mill. Home life everywhere is changing as the world's homes are being forced to yield up their youth to satisfy the demands of factories, shops, and mines.

In the West the industrial revolution has meant a host of mistakes and bitter experiences. These blunders have at least been educative. Western nations know more than they did fifty years ago concerning such matters as child labor, long hours, occupational diseases, industrial accidents, welfare work,—all the deep moral and spiritual implications of modern industry.

We are too prone to think of industry as a matter of mechanics. It is that only incidentally. It is primarily a matter of human lives and souls. Our industrial development of the last half century has been a rigorous spiritual experience, and out of it have come soul-ruining evils and soul-blessing benefits.

The great question confronting Christian missions is this: Shall the Orient be permitted to repeat the blunders of the Occident? Shall the experience of the West be of no value to the East and the South? Or shall the Christian missionary, facing this industrial age, so thoroughly acquaint himself with the history of industry in its social and spiritual phases that he may be able to carry the bitterly learned lessons and gradually attained solutions of the West to the inquiring East?

That the Christian church is able to meet the extraordinary demands of the Machine Age is proved by the striking records which her pioneers have already made in this field. The stories of a few of them are recounted in this book. No effort has been made to describe industrial conditions in detail for every country of the world—no one book could do that. Instead, a single industrial situation has been chosen for treatment in each country: in South America, the missionary significance of the example set by North American industry; in Japan, the acute factory situation and its attempted remedies; in China, reforestation and its bearing upon the happiness of China's working millions; in the Philippines, the industrial revolution ac-

complished by the United States government; in India, the lifting of life through the improvement of agricultural methods; in Africa, the problem of the black worker in the white man's mines.

The concluding chapter relates the achievements of industrial mission schools in many parts of the world.

Great honor is due the intrepid twentieth century missionaries of the world's factories, forests, farms, and mines. A study of their work gives fresh assurance of the tremendous, world-transforming power which lies in the humble hands of the Christian missionary.

WILLARD PRICE.

New York, May, 1918.

I

THE HAND CLASP OF NEIGHBORS

I

THE HAND CLASP OF NEIGHBORS

Anciently, one of the world's most magnificent races. To-day, a race of timid, cringing, downtrodden serfs.

That in brief is the history of the Incas of Peru and Bolivia. The greatness of their ancestors is now only a tradition. More vivid to them are the tales of punishments meted out to leaders of the early uprisings—tongues cut out, bodies torn limb from limb—sights seen by grandfathers now living.

Kept in ignorance, exploited by provincial authorities, brutalized by alcohol for nearly three centuries, the Indian of Peru and Bolivia has become an apathetic beast of burden, virtually a slave.

Meanwhile his masters have lolled at ease. They have almost forgotten how to work. The fire of enterprise has died low in their souls. So long have they depended upon others to work for them that they have lost skill as well as energy. They have become enslaved in idleness and incompetence. There are a few, of course, who have resisted the deadening influences of an inherited life of ease.

Enslaved by Their Slaves

The world does not afford a more striking example of the boomeranging of evil. Much of the national weakness of these countries must be charged to the peonage system which has subjected the Indian to grinding toil and has, in turn, vitiated and undermined the character of the Spanish ruling class.

The ambition of the typical Spanish young man of this region is to acquire a farm and have a few hundred Indians work it for him, while he spends his time chatting over his liquor in the restaurants of the capital city.

To work is a sign of low breeding. To carry a package the size of this book through the streets is a disgrace. If you buy two apples in the market you must drop them in the poncho of some Indian boy who will humbly carry them after you while you stalk empty-handed back to your residence. Empty-handedness is the national stamp of gentility. A Bolivian lady who could fry a steak or boil an egg would be ashamed to admit it. When she sees her friends coming to her front door she will run frantically throughout the house to find a servant rather than open the door herself. A gentleman was once excluded from a fashionable club for the real reason that he had been seen using a hand-saw in the patio of his house.

Serfs on Land They Once Owned

The condition of the Indian farmer is pitiful. On the way from Guaqui to La Paz our train was an

hour and a quarter passing through the property of one landholder. This property was seventeen miles long by ten miles wide and it was dotted with more than one thousand houses of the Indians. These Indians formerly owned the land themselves, but on one pretext or another it was wrested from them. Now they must work for the owners day after day without payment, and in what little spare time they can get they may till a small patch of land for their own use. The owners rarely go near their farms. In some cases they are afraid to; their Indian slaves would kill them.

Two years ago a wholesale rebellion of the Indians was threatened. They came by night in great numbers and looked down over the edge of the pit at the bottom of which lies the city of La Paz, the proud capital of Bolivia. There was much frightened running to and fro in the streets. It was feared that the Indians might attack the city with bombs dropped from above. Stern measures were employed, the Indians were driven back to their tasks, soldiers guarded the edge of the Alto Plano or plateau above the city, and the rebellion was averted.

Signing Away Freedom for a Drink

The lot of the Indian industrial worker is little if any better than that of the farmer. The mines and mills have been accustomed to secure their Indian workmen by the *enganche* or "hook" system. A "hooker" as agent for his company goes into a little

chicheria or tavern, talks to the men, treats them with liquor and tells them the wonders of the country from which he has come and where the industry he represents is located. He asks them if they would like to go and offers to advance money enough to pay their passage and to have a good time on before going. Offer money to a half drunken Indian and he will do anything you say. The victim signs a paper which requires that he shall work off his debt. When he sobers up and realizes what he has done, he may be reluctant about going. In that case he is simply arrested and taken by force to his destination in factory or mine-gallery and notified that he will not be released from his work until the debt is fully paid. Then his wages are placed at so low a figure and the charge made to him for provisions bought at the company's store is so high that the poor toiler is kept continually in debt.

Peru and Bolivia do not employ the word "slavery" as applied to these practises. But is there any other word more true and appropriate?

The Slavery of Children

There is another form of slavery even worse than the two described. This is the custom of the buying and selling of Indian children common in many of the inland cities.

Suppose, for example, you live in the city of Arequipa, Peru, and you want some one to do the housework. Perhaps you say to the conductor of the train

to the mountains: "I wish you would bring me down a boy."

A few days later a tearful and frightened Indian boy is brought to your door. Perhaps the conductor has paid the parents of the boy ten dollars, so you must pay the conductor that much and a little more to cover his trouble.

That boy is now absolutely your property from his present age, say eight, until he reaches twenty-one. At that time the government will want him for the army. In the meantime he is yours. You need not pay him a cent. You may dress him in any old rags; you may give him any odd corner to sleep in; you may starve and kick him; you may work him as many hours a day as you please, and if he runs away the government will help get him back to you. If he refuses to work, he will be put into jail, mixed in with his elders but not betters, and kept there until he changes his mind.

The brutality to which he is often subject simply would not be believed in North America. An American in Arequipa told me of seeing a neighbor's slave, a little boy eight years old, frequently kicked in the stomach and sent sprawling as punishment for the most trivial mistakes. Finally the American interfered. But he found he could do nothing, the law would not back him up, and his interference only cost the child more punishment.

The arguments, once familiar in our own South, are heard here in defense of this bondage. "Some

of the masters are kind." This, of course, is true. "The Indians learn to work." There are others who need this learning far more than do the Indians. "The system elevates the ideals of the Indians by bringing them into close contact with the civilization of the white man." What civilization!

Chile's Indian Ancestry an Asset

Is it any wonder that such practises are eating away the very foundation of character underlying the national life of Peru and Bolivia? This truth is illustrated in another way by the experience of Chile. The Spanish conquerors who came to the land now known as Chile also found Indians, the fierce, warlike, reckless Araucanians. They were very different from the peaceful, industrious Incas of the Andean plateau. The Araucanians refused to be put out on the farms and subjected to a form of slavery while the masters took their ease in the city. The white farm-owners were compelled to remain on their farms and take a vigorous share in the actual work. Thus Spanish character, strong to begin with, was further strengthened. The Araucanians were never really conquered. They gradually merged with the whites and the result is a mixed race, strong, energetic, and unafraid of work. The Italian foreman in an iron foundry of Valparaiso told me he had had as workmen Argentines, Peruvians, Bolivians, French, and English, but the Chileans were by far the best workmen of all. They were fearless and tireless. When asked if a job

were too dangerous for them, they would say: "*Soy hombre*" (I am a man).

Because of the progressive and aggressive temper of the Chilean work-people, conditions among them are much more wholesome than in the northern countries. There is nothing in Chile that could reasonably be termed slavery. At the same time the condition of the worker is far from ideal. His hours are usually long, wages low, safeguards from accidents few, provisions for health and welfare lacking.

Living Higher Than in the North

Before one visits South America he is apt to take it for granted that the cost of living there is much less than in the United States. When he goes he is dismayed to find that provisions of nearly every sort cost substantially more in South America than in North America. Then are the wages for each kind of work higher than those paid in American cities? Not by any means. The average daily wage of Chile is calculated by our Consul-general at Valparaiso as being about sixty-three cents. In the nitrate fields, where the cost of store goods is almost prohibitive, the wage is little more than a dollar a day. Laborers on the farms are paid twenty-five cents and two plates of beans a day!

"Since wages have not gone up in keeping with the continual advances in the prices of all the necessities of life," reports Consul Davis J. Myers from Punta Arenas, "the laboring classes of this district

have not enjoyed the great prosperity that has so favored the merchants and ranchmen. On the contrary they have felt severely a reduction both in the quality and the quantity of clothing and food which they were formerly able to purchase at the same wages." Mr. Myers states that within little more than a year after the beginning of the war, living expenses in this part of Chile had increased by the following percentages: rent, 111; fuel, 83; clothing, 38; food, 72. The average of these is 76. The wealthier families are now paying three and a quarter times as much as in the year 1909 for the same comfort. The working families are not paying three and a quarter times as much because they have not the money to pay. Their only way of meeting the situation is to get along with three and a quarter times less comfort.

In Argentina, Uruguay, Paraguay, and Brazil there is the same fundamental trouble—a speeding up of the nations' work and a lagging behind in making proper provision for the worker.

Native Social Movements

It must not be supposed that South America is entirely blind to the situation. There are many ameliorative efforts, such as the league against alcoholism, the national savings-banks, the building of model homes for workers, and a certain amount of welfare legislation, such as that which provides that mothers who have children under one year of age shall be permitted to spend one hour of the working day in caring

for their children. Chile has recently enacted an employers' liability law and while it is of a type long ago rejected in the United States and Europe, still it is much better than no law at all. It is one thing, however, to enact a law and another thing to enforce it. One of the managers in a large Chilean industry was taking me over his plant. I asked him if it had been necessary for the company to make many readjustments to meet the requirements of the new law. He looked at me blankly and asked: "What law?" He was not even aware that the law existed.

The ameliorative attempts made by the governments of these countries, as well as by private agencies, are thus at present rather sporadic and uncertain.

The Example of North American Industry

There are, however, two forces which, by example and precept, are powerfully influencing South America's attitude toward her workers. These are North American industry and North American missions.

The example of American industrialists has not always been clear and shining wherever they have gone throughout the world. Of course in South America, too, there are North American industries which are squeezing the life out of their employees as a paper-mill squeezes the moisture out of pulp. Such industries, however, are extremely few. On the whole there is inspiration and hope in the splendid leadership in welfare which is being afforded by North American firms in South America.

In the best of the American companies the cholos¹ work but eight hours, and receive from \$1.50 to \$4.50 a day. This is nothing short of revolutionary in a land where the twelve- or sixteen-hour day and fifty-cent wage are common.

Other nationalities have been somewhat prone to take advantage of the existing low standards. But American firms, such as the Cerro de Pasco Mining Company, in Peru, have followed a shrewder method and in the end gained a greater advantage.

This firm gave decent living wages when there was no demand for such wages, provided houses that were so much too good that some workmen took off the doors and window-sashes and burned them as fuel, equipped an excellent hospital, organized sanitary inspection, started schools, furnished necessities through a commissary at the lowest possible prices, and then taught the cholos to quit coca-chewing long enough to learn to play football.

A Company Which Influences Two Nations

The campaign, as the manager himself admits, has been entirely selfish—and it has been richly rewarded. The best workmen gravitate to this company. They work regularly, whereas the Indian has formerly been accustomed to follow the example of his Spanish master and make riotous holidays of all feast days, of which there are one or more every week. They rise to skilled work. The proportion of foreigners has

¹ A cholo is a person of mixed white and Indian blood.



There are places in South America where one can buy an Indian boy for ten dollars, and until he is twenty-one you may use him and abuse him as you please.

steadily diminished as the natives have become proficient until now only a handful are of foreign birth. And the Cerro de Pasco Mining Company, through knowing how to utilize its human as well as its material resources, has become by far the most powerful industrial enterprise of Peru. The influence of its example simply cannot be calculated. We should not pretend to say that its slate is clean, but it is at least so nearly clean that all Peru looks upon it with wonder. The toiler in every shop and plantation and sugar-mill who feels that he is not squarely treated goes to his employer and reminds him of the conditions afforded by the Cerro de Pasco to their workmen. Greedy employers hate the name of that company. Humane employers study its methods and improve their own. The example of this powerful organization which owns scores of mines and employs tens of thousands of contented workmen is slowly but surely lifting the level of industrial welfare throughout both Peru and neighboring Bolivia.

The example of this company is being more or less duplicated by many other American interests—in the oil-fields, the sugar-plantations, along the veins of silver and gold in the mountains, and on the American-operated railroads. I found everywhere that North American industry was held in high esteem. Sometimes the beneficent character of the industry itself, as in the work of the J. G. White Company, engaged in the sanitation of the pestilential port of Guayaquil, Ecuador, is such as to inspire respect for those who are

carrying it on. The Standard Oil Company, whatever may be our opinion of its history in the United States, is a blessing to workers of South America. Instead of taking advantage of the ignorance and helplessness of its employees, it is rather endeavoring to place them on a plane of intelligence and independence. The immense packing industry of Argentina and Uruguay is dominated by such firms as Armour's and Swift's, and which are setting a high standard in the treatment of labor. The American mines at Chuquicamata, Chile, are unique in that when a native becomes an employee he is apt to remain on the job the rest of his life, and often his son after him, because of the superior conditions offered. This is in striking contrast with the situation in the usual mining-camp where the miner is frequently a transitory character, coming to-day, working a brief while, and starting on his way again a few months hence.

In Chile's vast nitrate fields, from which comes the nitrate to make the ammunition without which this war could not go on, one of the best of the one hundred and seventy different plants is said to be that of the Du Pont Powder Company. One concern which was continually losing its best men to the Du Pont Company, finally, in desperation, sent a man to the United States to study welfare methods so that he might install them in its plant, in order that it might meet the competition of the American firm. Other plants also are beginning, either through inclination or necessity, to incorporate the Du Pont methods.

A Mine Which Mothers Twenty Thousand People

It was a memorable trip I took from Santiago up among the peaks of the Andes to visit the Braden Copper Company, a Guggenheim concern. It was the wild and wintry month of June (corresponding to December in northern latitudes) and a white storm swept along with our train up to the peaks where the mining-camp lay almost smothered in snow. You may get some idea of the snowfall from the fact that the tennis-court (when the summer comes in December) always lies buried under about twenty feet of hard-packed snow. It is necessary to saw the snow into blocks, load it on flat cars and haul it away before the boys can play tennis!

But the twenty thousand people who are dependent upon the Braden Copper Company are well protected from the rigors of Andean weather. Their houses are warm and tight. Besides, a great many of them work underground where the temperature is always the same, winter and summer. The huge mountain rises like an immense bee-hive. It is honeycombed with more than a hundred miles of tunnels, and these tunnels are being extended at the rate of a mile a day. The tunnels are arranged on various levels, nearly twenty in all, with elevators and chutes running from one level to another. The mountain, to change the figure, is like an apartment house half a mile high. Ore from the upper stories is dumped into chutes like dumb-waiter shafts ("vultures" they are called because of the

readiness with which they will swallow a miner if he makes a misstep) and is dropped to the basement level, where it is carried away like the ashes of an apartment-house. But these are precious ashes! They are taken to the smelter where pure copper is extracted to the tune of two million dollars' worth or more every month. Five thousand tons of ore are mined every day and the capacity of the plant is to be increased to ten thousand tons.

Night and day thousands of men are burrowing with air drills and pickaxes; seventeen underground electric trains thunder from one subterranean community of workers to another, while an indicator in the office above the earth constantly shows the exact location of each train; twenty underground telephones flash their messages through miles of rocky tunnels; American foremen from Harvard, Yale, Columbia, Princeton, sit at their desks typewriting their reports in neat, boarded, blueprint-hung offices a half mile under the surface of the earth; and underground repair-shops, carpenter shops, compression rooms and power-plants add to the uncanny din echoing through the hundred miles of streets of this subterranean city.

Doubling the Average Wage of Chile

Life here is necessarily hard and dangerous. But the Braden Copper Company has not hidden behind this excuse. All South America respects the welfare record which has been established by this concern. Great credit is due to Mr. S. S. Sorenson, the general

manager, and to his superintendent of welfare, Mr. Colley, as well as to Mr. Graham and Mr. Turner, superintendents of the mine and smelter. They are all welfare superintendents at heart. Perhaps it would be more correct to say that they are all great industrialists who know very well that complete efficiency in industry is impossible unless strict attention is paid to the welfare of the worker.

Formerly the work of the mine was done in two twelve-hour shifts, the one a day and the other a night shift. But it was found that twelve hours of continuous work led to exhaustion from which it was difficult to recuperate, and which often led to disease. Accordingly the order was changed to three eight-hour shifts, so that no man should work more than eight hours out of the twenty-four. The result was an immediate brightening and quickening of the men. That was significant from a human standpoint. The significant fact from the industrial standpoint was that within a few days after the change was made production had increased thirty per cent!

Common workmen in this mine receive about one dollar and seventy-five cents a day. This is more than double the average wage of Chile. And yet the Braden Copper Company finds that it pays. They believe that a workman cannot keep decent on an indecent wage.

There was no ignorance here concerning the provisions of the new accident law. But at the same time there will be no struggle to conform with its

provisions, because of the simple fact that for many years the Braden Copper Company has been doing far more than this law demands. Accidents are largely prevented. When they do occur, the injured man is given the best of medical attention and, if permanently disabled, is supported indefinitely by the company. Men who are too old to work are also supported. The company has, as Mr. Graham expressed it, "a good many old horses turned out to pasture." This care of the workman who has become worthless would, of course, be unique even in North America, and in South America it has formerly been unheard of.

Good houses, baths, club-rooms, libraries, moving-picture shows, restaurants, an excellent hospital, and a well-conducted store are supplied for the comfort of the workmen.

"Whisky Guards" to Enforce Prohibition

A model is set not only for South America but for North America in the fact that the use of liquor is absolutely prohibited among the workmen of this company. Nor is this prohibition merely on paper. Fifty guards, or "whisky hounds," stand sentinel on the mountains round about the camp watching for "whisky runners." The methods used by the whisky runners in their attempts to smuggle liquor into the camp are ingenious. One day some men were seen carrying a tool chest into camp. Presently they were seen carrying it out again. After a time they brought

it in again. Suspicious guards stopped the party this time and examined the chest. It was full of tools. Several more trips were made and then the guards again halted the party and made a more thorough investigation. This time they found that the chest contained a false bottom under which were stored bottles of whisky.

One whisky runner conceived the idea of taking the works out of a Singer sewing-machine and then filling the machine with bags of whisky. Bottles have come to camp concealed within large cabbages, and at one time eighty-four bottles were discovered in the water-tank of a locomotive. The most common method is to wear a light jacket under the coat and fill the pockets of the jacket with bottles.

But although a little liquor is brought in, the very ingenuity that is required to smuggle it in proves the strictness of the rules. Drunkenness is practically unknown. Any workman discovered with liquor would be promptly discharged. The American foremen and superintendents have no special privileges in this matter. One American who considered the rules good enough for the Chileans but too good for him came to work one morning with a whisky breath. He was sent to the United States on the next ship.

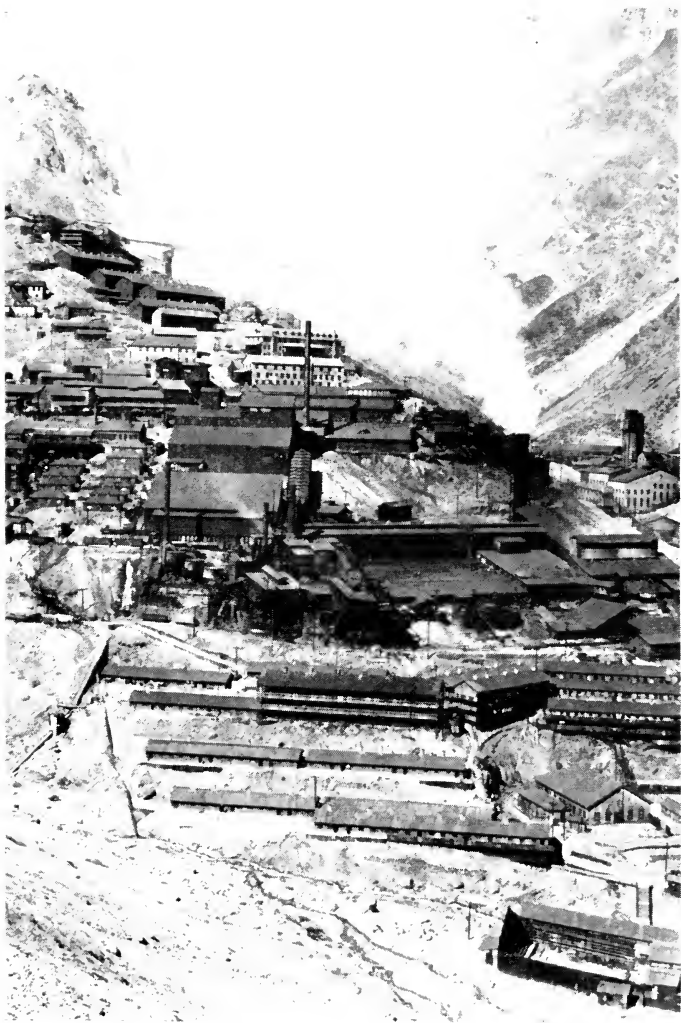
Murder Stays Out When Whisky Stays Out

The result of this strictness is that the men work through all holidays and feast days without a murmur, whereas these days in other camps are given

up to idleness and wild debauch. Although this camp, like all other mining-camps, contains many rough and criminal characters who have formerly had much experience in handling a knife or a revolver, murder is extremely rare, and there is not more than one serious fight in a year. Contrast this with the situation in Rancagua, a town not more than forty miles away, where there are almost as many murders as there are days in the year, and where, along the car tracks, one may see shrine after shrine made of Standard Oil tins decorated with wreaths and crosses—inside, a candle or tin can of oil with a wick in it to be kept burning at night—each shrine marking the spot where a murder has been committed.

The company also encourages saving. The men have been educated as to the importance of saving until now approximately ten per cent. of the total amount paid to the men is brought by them to be placed to their account in the branch savings-bank fostered by the company. The Valparaiso manager of the National Bank of Savings of Chile said later to me: "In promoting saving among the working people, we get much better cooperation from American companies in Chile than from any other source."

I asked the mine superintendent for his opinion of Chilean workmen. "Well," he said, "a man's ideas concerning the natives depends on how long he has been here. During the first three months he swears at them. After he has been here twelve months he swears by them. When a Chilean distrusts you he



Such North American firms as the Braden Copper Company are pioneer missionaries to Chile's industrial world. 20,000 people benefit by the welfare work, good wages, and short hours of this company.

will be found very hard to manage. After he comes to have confidence in you there is nothing in the world he won't do for you, no matter how hard or how dangerous. The more you give these people the more they will give you—that's all."

Missions Aid Business in Planting Democracy

What cooperation, if any, have these American concerns had from American missions?

A very definite piece of constructive work in this connection is being carried on by the American Institute in La Paz. This school draws its students from two classes, the highest and the lowest, the lily-fingered sons of Spain and the callous-fisted Indians. To bring together these two extreme classes and make them work in harmony and train them both up to competent citizenship is a remarkable achievement.

Sons of wealthy deputies and leading citizens of Bolivia who attend the school are not only learning how to use their hands. They are learning to appreciate the Indian. They are making remarkable discoveries as to the character of these people whom they have thought to be nothing better than a race of slaves.

One Indian boy came to the school followed by his father, who, not being able to afford to hire a donkey, carried the lad's trunk on his own back. That boy, at the end of the year, took first honors in English, forging ahead of all his fellow students. Another Indian boy joined the Institute football team.

When he appeared in football clothes to take part in the game with a rival school, there were roars of derision from the crowd that had gathered to see the match. The Indian paid no attention and the game began. Soon the taunts of the crowd were changed to shouts of applause. There was not another man on either team who played a better game than the Indian half-back, and when the match was over he had won a new respect, not only for himself, but for his race. Three years later this Indian graduated from the commercial department with first honors.

Mission Graduates Are Bolivia's Future Leaders

From the Institute's remarkable commercial department (commerce was formerly a thing in which no young man with a waxed mustache could be induced to engage) men go out who are beginning to lead the business life of the country. They are stepping into positions of trust at salaries which make older men blink with envy. One lad who, upon graduation, was given work by the Bolivian Railway Company has had his salary multiplied by seventeen in less than three years, and the process of multiplication shows no sign of abating. Other graduates in the employ of the same company, on account of their fine training, are forging ahead almost as rapidly.

One day a number of the older employees of this firm made a protest to the manager concerning the "favoritism" that was being shown to these young upstarts. The manager explained that there was no

favoritism. These young men knew their jobs. It was simply plain business sense to push such workers ahead.

And to one of the missionary professors of the American Institute this manager said:

"I have been in the railroad business in Peru, Chile, and Bolivia for fifteen years. Excepting men whom I have brought over from England, I have never found help to equal the boys the American Institute has sent me. I should like to fill my office with such boys. I will take every one you can recommend from your graduating class this year, even if I have to hold some of them on salary until I can find places for them."

Likewise in the commercial houses, banks, and mines, the manager who can land a graduate of the American Institute is regarded as fortunate. The demand for graduates is far greater than the school can possibly fill.

Suiting Education to the Needs of the Country

Of special interest is the scientific training afforded by the school. Bolivia is preeminently a mining country. Therefore the chemistry and physics in the Institute are not like those found in the schools of the United States but are a chemistry and physics definitely applied to the mining industry. The analysis of ores is a constant subject for laboratory experiment. Geological expeditions are made to the near-by mountains. Every boy who takes these subjects gets a

working knowledge of tungsten, wolfram, tin, copper, silver, and gold, and the graduates of such training will set a new pace among the native mining experts and assayers of the country.

The director of the Institute has a dramatic dream for the future. At present Bolivia has almost no native manufactures. She exports her wool to England, where it is made up into clothing and returned to Bolivia. Consequently a man in Bolivia must pay fifty dollars for a suit of clothes that would not have cost more than fifteen dollars if it could have been made inside the country. It is so with tin, copper, iron, silver, leather, rubber, and other materials. They are all exported and later received back in manufactured form at ruinous prices.

The idea of the director is to teach some particular industry as, for example, soap making, and then establish the graduates of this course in the soap business. This, if successful, would mean the end of paying sixty cents for soap which ought to cost not more than twenty cents. Likewise the manufacture of garments, shoes, metal-ware, and of many other necessities might gradually be added to the list of native industries through this method.

If the American Institute can send out young men trained to think of all men as their brothers, trained in Christian ideals and scientific methods and the correlated use of mind and hand, the democratizing influence exerted by American companies will be strongly reenforced.

Welfare Work Serves Both Church and Industry

A missionary by the name of Foster, stationed at Arequipa, Peru, observed that young workingmen had no place to spend their evenings except in the cantinas and vicious resorts. Accordingly, he started a club for them and soon had a membership of more than sixty. His club was a recreation center, but it was more than that. He made it a place where character should be trained and studious habits cultivated. Forga and Company, cotton manufacturers, employed one of the boys and found him so studious that finally they asked him where he had obtained his training. He told them of Foster's club. Representatives of the company came to Mr. Foster and made arrangements to secure the services of twenty more of the boys. They were taken into permanent employment, and an adobe room near the factory was built, lighted, and equipped for them to use as a club room. There they are continuing their studies, and as rapidly as Mr. Foster can develop new boys in character and integrity, Forga and Company are only too glad to receive them.

The direct Christian reaction of such work may be seen in the fact that in this city, where it has been extremely difficult to win any converts, Mr. Foster has taken eight new members into the church during the past year. Five of these had been members of his club. Even greater significance lies in the fact that every boy who passed through that club, even though

he did not actually join the church, had his character strongly influenced and molded after the Christian pattern and will carry the effects into the industrial life of Peru.

In Valparaiso, the Young Men's Christian Association and a large Presbyterian school are carrying on many interesting activities, one of them being a night school for domestic servants. Household drudges who have not even known how to hold a pencil are being trained for positions of independence. Also the Young Men's Christian Association holds courses of lectures for workingmen, treating such practical subjects as thrift, home buying, home making, sanitation, civic responsibility, and other subjects of a similar nature.

The Santiago College for Girls, in which the daughters of the finest families of Chile are enrolled, is teaching the dignity of work. The Instituto Ingles of Santiago and the Ward School, of Buenos Aires, and similar schools elsewhere furnish good commercial training. Also in Buenos Aires the Salvation Army and some splendid institutional churches are doing a large work among the poorer classes of workers. Five thousand children whose families are too poor to afford them an education are being trained by a splendid Anglican missionary, Mr. William Morris, who, through academic and trade schools, is lifting at least this part of the new generation into competence and self-reliance. Christian love is the driving power of the enterprise and is bound to be carried over into the

industry and trade of Argentina through the lives of the graduates of this school.

A Human Dynamo of Service

In beautiful Rio de Janeiro there is a remarkable example of what missions may do to better the lot of the workers. Dr. H. C. Tucker, a modest, plain dynamo of a man, went to Brazil as agent for the American Bible Society. He did good work in that connection, but that work was not enough for him. The slums of Rio de Janeiro, where many of the unskilled workers of the city live, got on his conscience. Finally he opened a mission hall there and held evangelistic services. This led him to begin to study the social conditions of the working people.

The first thing that struck Dr. Tucker, as a result of his investigations, was the prevalence of tuberculosis. So he printed a card dealing with tuberculosis and had it distributed broadcast. Then he sent to Josiah Strong and got an illustrated lecture on the disease, which he gave in his mission hall. Impressed by the lecture, the president of the board of health asked Dr. Tucker to deliver it in all the public schools and public squares of the city, which he did, telling his story and showing his pictures to tens of thousands. Finally an anti-tuberculosis association was started in connection with the board of health, and Dr. Tucker's dispensary was given a government appropriation to help in an organized campaign against the disease.

The vista of need among the laboring classes led

Dr. Tucker into a great many other lines of endeavor. He started a day-school in the slum district. He put in not only the "three R's," but a daily tooth-brush drill and some vigorous courses in physical exercise. But somehow his teachers were unable to get a quick intellectual and moral response from the children. The little tots were as limp as wilted flowers.

This perplexed Dr. Tucker until he thought to investigate the meals of his students. He found that most of the children were trying to get through the day on a cup of black coffee and a pickle! No wonder they reacted like rusty hinges instead of like steel springs which children usually simulate. So he instituted a noon lunch of whole-wheat mush with milk and sugar.

At the end of a month the school children showed an average increase in weight of two and a fifth pounds, the general physical condition was better, and—what was more important—the teachers reported an improvement in response that was nothing short of remarkable.

There was a playground in connection with the school, but its cement pavement was too hard for the children's thinly-soled feet. The ingenious missionary decided on a mixture of asphalt, cork, and sand, which would make a soft, springy pavement. He went to a paving concern, but their price was prohibitive. So he visited the manager of the Anglo-Mexican Products Company, and that worthy, as soon as he had grasped the sensibleness of Tucker's enter-

prise, contributed two tons of asphalt. Another firm likewise contributed the cork, another the sand, another the coal for fuel, and still another laid the pavement without charging a penny!

Brazil's First Public Playground Work of Missionary

It was not long after this that he scandalized the mayor and the superintendent of parks with the suggestion that a large portion of the city park, which was fenced in with iron rails and protected with "keep off the grass" signs, should be thrown open and equipped as a playground and athletic field for the use of the workers of Rio.

When they got over their shock—for a park in Brazil has traditionally been a thing to look at, not to use—the mayor and superintendent pulled up at Tucker's door in their most de luxe auto, sumptuously whirled him to the park, allowed him to select one of the choicest tracts, and promised it to him—on one condition.

The condition was that he should equip it! That meant swings, chutes, bars, tennis outfits, apparatus for football, baseball, basket-ball, and other outing games, for Tucker's plans were by no means as modest as the man himself.

But how could a poor missionary handle this expensive task?

Tucker saw some men tearing up the street-car tracks. He went to the manager of the light and

power company and said: "May I have the old rails?"

The manager evinced interest. What were these old rails wanted for? Swing supports and apparatus for an athletic field? Pshaw, they weren't good enough. Only the best that money could buy were good enough.

"But I have no money to buy them," Tucker explained.

"Well, what equipment is needed?"

"I can show you in a Spalding catalog."

"Bring it in."

The catalog was brought in. A little later the manager took a trip to New York. When he came back he brought with him the receipt for seven hundred and forty dollars' worth of the finest apparatus obtainable in New York City—paid for out of his own pocket.

The apparatus was installed, dedication day was announced, the crowds gathered, the Brazilian flag was unfurled, the band played, the mayor made a speech, *and the first public playground in Brazil was opened.*

A well-to-do man who had been present at the dedication met Tucker on the street.

"What's your purpose in all this?" he asked.

"My purpose is to save men for Jesus Christ—and I believe Christ came to save the entire man, body as well as soul."

"Where do you get the money?"

"I have none, it comes in voluntary contributions."

"The next time you want to start anything like

this," said the man, as he walked away, "let me know. I never understood missions before."

The playground was a tremendous success. And now Tucker's help has been enlisted in planning playgrounds to be organized in connection with all the public schools.

He Believes in Saving Both Body and Soul

It would be impossible here to tell adequately of all this man's activities. He has kept in mind the need of the workers for good food, good clothing, and good training. Accordingly he has established a cooking school with gas stoves donated by the gas company! A sewing school with machines donated by the Singer sewing-machine company! A typewriting school with typewriters donated by the Remington company!

Because of the fact that Brazil's public school system is still so incomplete that illiteracy runs over seventy per cent., and the great majority of the working people never have an opportunity to improve their condition through education, Dr. Tucker has secured the organization of an educational association, the purpose of which is to obtain funds from wealthy Brazilians and establish schools in quarters not reached by the public schools.

Screenless Rio is now receiving its first education with regard to the fly as a carrier of disease. Formerly people didn't care whether the fly wiped his feet before coming into the house or not. Even meat and

provision shops were unprotected. Through the board of health, Dr. Tucker has projected an educational campaign that is already bringing about a radical change of sentiment toward the fly.

He has also made a first move in the face of the appalling infant mortality of Brazil by publishing and distributing by the thousands a simple statement of instructions for mothers on the care of infants.

And he has recently begun, with the aid of a corps of trained workers, an investigation of industries in Brazil; and such subjects as hours of work, wages, child labor, woman labor, working conditions, and workers' homes are receiving attention.

Many a man who "never understood missions before" has come to believe thoroughly in all that Tucker represents. He has captured the devotion of the people; they love him more than the most beautifully carved saint in the cathedral; they are ready to follow him in anything he may suggest, and the name "missionary" has a tender and honored significance in the city of Rio de Janeiro.

Grenfell of Labrador once said: "When you set out to commend your gospel to men who don't want it, there is only one way to go about it—do something for them that they'll understand."

Missions and Industry Must Cooperate

American industries and American missions are doing things for the South Americans that they can

understand. The genuine warmth and helpfulness in the North American hand clasp is felt and appreciated by our neighbor of the South. One result is the beginning of a revolution in the attitude of the people toward Protestant missions. When they see a missionary, they no longer begin to look for his horns. The day of stiff opposition is passing and the missionaries have not only themselves to thank, but they must thank the men who have guided the policies of the great North American industries in South America.

There should be larger cooperation between the industrial and the missionary forces. If the missionary boards really desire to better the lot of the workers, they might well join in the appointment of a publicity agent who should keep the newspapers of the continent supplied with stories of the most advanced welfare methods, in conjunction with stories of the value of Christian character in industry. Many good-hearted native employers would be quick to introduce up-to-date methods of betterment if they knew just how to go about it. Other employers, not so good-hearted, would respond if the example of others combined with the pressure of public sentiment through the press were brought to bear upon them.

South America stands in great need of labor legislation. There are no adequate laws for the protection of the workers. It is not the business of the missionary to go into politics and lobby for better laws. It is, however, his business to be intelligent on labor

questions, to encourage publicly those employers, either native or foreign, who are stepping ahead of their time, to make widely known for the benefit of others any good thing that is done, and to spread a democratic Christianity, of which Christian legislation will in time be the natural outcome.

II

LAND OF CHERRY BLOSSOMS AND SMOKE STACKS

II

LAND OF CHERRY BLOSSOMS AND SMOKE STACKS

We have been accustomed to think of Japan as a land of cherry blossoms, wistaria, Fujiyama, and the quaint kimono; but it is becoming increasingly necessary to think of Japan as a land of smoke stacks.

Thirty-four years ago there were about one hundred and twenty-five modern factories in Japan. At the present time there are at least twenty thousand. At that period these factories employed perhaps fifteen thousand people. To-day more than one million men, women, and children are working in the mills and factories of modern Japan.

In one year the United States buys seven million tooth-brushes from Japan, eight hundred thousand table-cloths, two hundred and thirty-three million cigaret mouthpieces, sixty-seven million paper napkins, two million imitation Panama hats, and millions of dollars' worth of silk. As Europe has little time at present to devote to world trade, Japan has taken up the task, and her salesmen are penetrating China, Malaysia, India, Africa, South and North America, and they are selling every conceivable sort of manufactured articles from toys to hypodermic syringes.

In the chemical industry alone the Japanese have learned to make forty products which they had to import before the war.

The development of manufacturing in Japan brought about so largely by the present war, has caused an invasion of the peaceful valleys by innumerable electric power plants. One of the plants established on the Nippashi River is said to be the largest in the Orient. Experts from Switzerland, Germany, England, and America were engaged to install the machinery, which included six 10,000 horse-power dynamos. Mushroom-like growths of small towns cluster about the different plants where small factories take advantage of the cheap power for chemicals, zinc, and for many other industries.

War-made Fortunes

The result of this enormous stimulation to Japan's industry is that war-time millionaires or *narikin*, as these newly rich are called in Japan, are springing up overnight in astonishing numbers. A Japanese publication says: "The so-called *narikin* are making their objectionable presence known in every way. Fine mansions are being built, motor-cars are racing, geisha are attired more gaily, and summer resorts are crowded with those 'who spend money like water.'"

A noted *ryoriya* (Japanese restaurant) in Kobe is said to have refused to serve any dinner below fifty yen (twenty-five dollars) a head.

It is the day of big profits. A Japanese steamship

company has recently declared dividends of three hundred and sixty per cent. A metal refining company has declared two hundred per cent. It is stated that Japan now holds three hundred and fifty million dollars in gold. Japan, consequently, is not only expanding her manufactures and her trade, but is commencing to lend capital to other countries.

What of the people who make these toys, toothbrushes, and silk goods on which the sudden wealth of Japan is based? Do they share in the new prosperity of their country? The answer lies in the simple statement that the average wage of men factory workers is between thirty and fifty cents a day, and of women workers between ten and twenty cents a day! Moreover, in many factories the cost of dormitory accommodations is taken from the wages, and a system of fines still further reduces the amount actually paid. The result is that factory workers, instead of making and saving money, are frequently left not only penniless, but in debt to the factory at the end of a few months. No, the factory population cannot be said to be deeply appreciative of the industrial opportunity afforded to Japan by the war. Japanese country life is being swept into the cities; it is put through the mills and comes out warped and colorless. Often it is completely destroyed in the process. It is estimated that every year a third of a million people are brought from the freedom and healthful conditions of the country to the congested factory quarters of the city.

The World-wide Lure of the City

Agents of the factories scour the rural districts for recruits. The ignorant lads and girls of the countryside are told of the wonders of the city,—the great buildings, the parks, the theaters, the moving-picture shows, the festivals and celebrations. Promises are made concerning fine wages, short hours, good treatment, and so on, promises which in most cases are never fulfilled. One can almost sympathize with the agents, for theirs is a tremendous and difficult task, the task of refilling the ranks of thousands who are annually ground to pieces by the factory system. Any one district is likely to be exhausted of girls in three years; and a Japanese authority states that the supply is now beginning to run out all over the country.

So great is the scarcity of labor that now, according to the *Japan Weekly Mail*, actual kidnaping methods are sometimes employed; and an account of the method resorted to is given in the following extract:

“The metropolitan police have recently learned that kidnapers have been selling children to various factories at the price of five or six yen each. This revelation came through the finding of two children wandering in Honjo, about a fortnight ago. When the two children, both eleven years old, were found by the police, it was ascertained that they had both been kidnaped in Akita prefecture, and were sold to a factory in Honjo for five yen a head. The two boys escaped from the factory and were wandering in the streets when they were discovered by the police.

“It is reported that many young men have been brought to Tokyo by kidnapers and, although not bad when they first arrive in the capital, they mingle with youths of bad reputation, especially after their escape from the factories to which they have been sold.”

Conditions in Japan's Factories

Many factories are little better than prisons. Dormitories are erected within the factory grounds, and the workers are kept under strict observation and rarely are able to make good an escape. But if factory life is so alluring and delightful as the agents have made it appear, why should any one wish to escape it?

Let us dissect this delightfulness. First, there is the matter of hours. The large cotton-mills run in two shifts day and night, so that each worker has a working period of about twelve hours. In the silk factories and in the weaving factories the hours are even more extreme, running from twelve to sixteen a day. Rest periods and meal periods are cut short. Thirty minutes is nominally allowed for lunch; but it would be a courageous worker who would dare to displease the foreman by taking so long a time. Lunch is frequently eaten during five or seven minutes while standing, or without even leaving the running machine. Of course the brunt of this régime falls hardest upon the women and children. Little girls, scarcely in their teens, must rise every day at four-thirty and work from six in the morning to six in the evening;

and, when the pressure of war orders is heavy, up to eight or nine or ten o'clock at night. Such a practise is of course absolutely ruinous to health.

Nor are the conditions of work entirely delightful. Many of the factories are dark, crowded, poorly ventilated, excessively hot; and in the cotton-mills the air is generally filled with tuberculosis-provoking dust, and modern methods of artificial moisture to arrest the dust are not commonly employed. Little provision is made for the cleanliness or comfort of the employees, except in the best mills. Accidents are frequent, because of the lack of proper safety devices. One factory in Osaka with a thousand employees has had an average of fifty accidents daily. Girls are often subjected to rough and insulting treatment at the hands of foremen. There are, of course, some men who do try to take care of the workers under their supervision.

Other troubles arise. Take for instance the dubious delightfulness of the new housing conditions for this third of a million people, annually, who have been accustomed to the open life of the country. In most Japanese factories the dormitory system prevails; the operators are thus kept in barracks within the factory compound. From ten to thirty operators sleep in a single room.

Tuberculosis Toll Is Heavy in Japanese Industries

"In the smaller factories," reads a report of an investigation of factory conditions made by Galen M.

Fisher, "the sleeping rooms are frequently upstairs over the noise, steam, and foul air of the factory itself. Although the large cotton factories allow a little more space per girl than the smaller factories, hygienically considered, they are the worst of all. This arises from the fact that the girls are divided into day and night shifts; both use the same rooms and bedding from one year's end to another. Furthermore, in winter the bedding is so thin that the girls have to sleep close together and share quilts to keep warm. The frequent change of personnel results in the same bedding being used by several different girls in the course of a year. Since the night shift sleep in the day they shut the blinds, and consequently the bedding is rarely if ever sunned. Inevitably tuberculosis and skin diseases are transmitted from one person and generation to another."

This treatment is not confined to the women workers of Japan. A description of the appalling conditions among the men employed for the work on one of the new power-plants is given by the Rev. Christopher Noss. "The contractor sublet the job to conscienceless exploiters of labor of the type of those who have built the railroads through the lonely wildernesses of Japan. Men out of a job were gathered in Tokyo by means of fine promises of big wages and easy work and sent to Odera in carload lots. Arriving, they were handed over to bosses armed with stout staves, and put to digging. Many, being unaccustomed to the work, fainted and were beaten to death,

their bodies were thrown into the fills or bundled into cement kegs and buried in the mountains. Their food was vile. At night their clothes were taken from them and they were penned up. In order to discourage desertion the contractor paid them, not in cash, but in tickets, making such generous deductions for expenses that the portion remaining to the laborer amounted to three and a half cents a day (ordinary wages for such work being from thirty to forty cents without board). There was a constant ebb of the man-power through desertion, death, suicide, and deliberate murder by the bosses, and almost every other day a fresh carload of fifty was brought in. An unsuccessful attempt to escape meant almost certain death. Yet refugees came in every day to Wakamatsu on the one side and Sukagawa on the other. One poor fellow dropped dead in Wakamatsu City Hall before he could tell his tale. Scores perished before the authorities could get their red tape unwound and begin to take notice. Some one said that about three hundred had been done to death, but a Christian physician who had been sent to Odera to deal with an epidemic of cholera that naturally broke out in the camps, estimated the number at one hundred, more or less.”¹

What are the results, on the whole, of this taste of the allurements and delights of the city? Sixty per cent. of those recruited from the country districts never return home. Broken in health and morals,

¹ Rev. Christopher Noss, *Tohoku, the Scotland of Japan*, 38.



These girls work twelve hours a day with men overseers. Starvation wages keep them so much in debt that they are practically slaves to the factory.

they drift from one factory to another; and many of the women go sooner or later into prostitution. Of those who do return home, one out of every six has contracted tuberculosis. This dreadful disease is being introduced by returning factory workers into rural districts where it has heretofore been almost unknown. The death-rate among factory women is almost three times as high as the ordinary death-rate among women. In the great manufacturing city of Osaka the number of deaths equals the number of births. It is said that more Japanese die of tuberculosis in one year than were killed in the war between Russia and Japan.

Japan's Industry Has a Sorry Harvest

Drunkenness and crime are common among the factory population, as they are among underpaid, underfed, physically weakened people the world over. The houses of prostitution are filled with one-time factory girls. Young men are taught to gamble, and the wages of a month disappear in a single night. It was revealed that half of the girls arrested by the police of Osaka in 1912 had formerly worked in factories.

Such is the harvest in disease, crime, and death in Japan's haphazard industry. Japan has adopted Western methods of manufacture but has stopped short at that. She has not yet gone very far toward accepting modern view-points as to the protection and care of workers. She has not yet fully realized that her workers are her greatest asset and that they must

be kept sound and strong if Japan is to continue her industrial advance.

We have reviewed the factory problem in general, but it may be of interest to notice certain peculiar manifestations of this problem in various separate industries. Delighted with the mechanical processes which are yielding them such large returns, it will take time for the factory owners of Japan to learn the peculiar perils attendant upon each industry and the necessity of guarding themselves and their employees against them. For every industry has its own peculiar bugaboo.

In the manufacture of toys from celluloid the bugaboo consists of the small particles of celluloid dust which fill the air and get into the lungs, thus causing tuberculosis. Celluloid combs are also dangerous to the makers of them, since the rubbing and polishing of the teeth create large quantities of fine dust. In the best European and American factories this dust is removed by exhaust ventilation.

In the manufacture of glass the process of glass-blowing entails exposure to intense heat and light, and cases of heat prostration, and diseases of the eye are not uncommon. In blowing large articles of glassware the blowpipe is passed from one worker to another. Many diseases are thus transmitted, particularly syphilis. The inhalation of glass dust gives rise to respiratory diseases. Mortality figures of the industry in Japan are lacking, but they may be judged from the fact that in Germany, where conditions are

much better, the average life of glass polishers has been found by Anacker to be 32.6 years.

Accidents in Japanese coal-mines are unnecessarily frequent. Counting the number of men killed for each million of tons mined, the following record shows the mortality rate during 1901 to 1910:

Great Britain	4.40
Austria	5.05
Belgium	5.56
United States	5.83
France	7.19
Germany	7.55
India	9.00
Japan	22.71

Japan is helping America to flood the Orient with cigarets. This industry strikes in two directions; it injures not only those who smoke the tobacco but those who prepare it. Many tobacco workers, after six months or so, frequently experience palpitation of the heart, weakened heart action, intermittent pulse, heartburn, loss of sleep and appetite, general fatigue, and loss of strength. The tobacco dust induces tuberculosis.

Each Industry Has Its Peculiar Danger

In the Tokyo Telephone Exchange I saw hundreds of girls fifteen years old, or thereabouts, sitting at the switchboard with telephone receivers clamped over their ears. The place was piping with their canary-

like "Moshi, Moshi" (Hello). The rooms were clean and light and the general treatment was good. However, I noticed at the end of the day, when the girls came out into the corridors to put on their wooden shoes and take up their parasols, that they were sadly wilted and quiet. The hours had been long, and there are few tasks more fatiguing than that of the telephone operator. When you wish to telephone and take down your receiver a light flashes before the eyes of the operator and a click sounds in her ears. If she is busy and you impatiently jiggle your hook, the light flashes on and off and the clicking sound is repeated every time the hook goes up and down. That is enough to test the poise of any girl. Yet if she also becomes impatient she is fined or discharged. The strain of the constant clicking and flashing, making of the necessary connections, answering inquiries, and being both swift and yet sweet-tempered, is nervously exhausting if carried on for many hours at a time. Neurasthenia and related disorders are distressingly prevalent among telephone operators.

The trolley-car is supplanting the riksha in Japan. The life of the trolley conductor is very different, but in many ways it is better than that of the riksha runner. Instead of being big and strong he must be as small as possible. Smaller men are preferred, since the conductor is expected to squeeze through a car packed beyond breathing room, and the smaller he is the better he can perform his duties. Inspectors keep

a constant eye on the conductors and motormen and deal out rewards and penalties with a high hand. The motorman gets twenty-five cents for every person he escapes killing. The conductor receives twenty-five cents for every ill person on the car to whom he gives proper care. In spite of these advantages the life is not ideal. Constant standing for eleven hours a day frequently causes fallen arches, varicose veins, and resulting disorders. The total wage does not come to more than ten or fifteen dollars a month, which falls short by at least half, of the amount necessary to keep a family decently housed, clothed, and fed.

And so with the other industries of the new Japan. The lurking danger of the iron and steel industry is a tremendous accident rate; of the pottery industry, lead poisoning from the glaze which is placed on the dishes to make them impervious to moisture and give them a polished surface: of brass founding, brass chills, zinc ague, metal shakes, and like ailments, all due to inadequate elimination of the zinc fumes from the zinc which is used with copper to make brass. In practically all industries low wages, long hours, and faulty welfare conditions prevail.

Cheap Labor Is the Most Expensive

Underpayment, overtime, and exposure to disease and death are not only inhumane; they are commercially unprofitable as well. Immature and poorly-cared-for labor is in the end the most expensive. It is the skilled laborer, whose hours are short enough

and whose pay is large enough so that he may keep a clear brain, a strong body, and quick fingers, who piles up the greatest profit for his employer. This is not empty theory. Positive proof may be had in the experience of Europe and America.

I have seen pile-driving going on in Japan and in America. In Japan a crew of women, each holding a rope, kept lifting and dropping a weight which, each time it fell, drove the pile a little deeper into the mud. These women were paid only a few cents a day. In America very expensive machinery is employed and skilled operators. When William C. Redfield, the United States Secretary of Commerce, visited Japan, he compared figures on the two methods and established the fact that it costs four times as much to drive a pile in Tokyo as in New York City.

An American connected with the locomotive industry visited the shop of the Japanese Imperial Railway and was shown about by the Japanese master mechanic.

"We can make locomotives much cheaper than you can in America," he said.

"Can you?" inquired the American. "If so, let us get the facts. If you will tell me from your cost sheets what your locomotives cost, I will tell you what ours cost. What makes you think your locomotives cost less than ours?"

"Why," said the Japanese, "because we pay only one fifth of the wages to our men that you pay to yours."

The cost books were produced and it was found that the labor cost on a locomotive in Japan is three and a half times as great as that for a locomotive of the same type made in America.

Any number of such examples might be obtained. Taking advantage of the present world situation, Japanese factory owners are making large profits. But their advantage is only a fraction of what it might be if they were to pay as much attention to their human assets as they pay to their material assets. Low-priced, physically weakened, mentally dull, morally unreliable labor does not pay the highest returns. This would seem axiomatic; yet there are many employers, even in Western countries, who have not learned this basic law of modern industry.

Strangely enough, the laboring class of Japan, now subjected to such hard conditions by the short-sighted privileged class, is not illiterate. A large majority of the workers are possessed, in whole or in part, of a Sho Gakko education. The overdriven workers read the newspapers and magazines and are able to discuss the important questions of the day. They will not be satisfied long to submit to the impositions of their employers.

It would be supposed that an intelligent government like that of Japan would see the economic necessity for factory legislation; but the government of Japan, like that of most countries, is powerfully influenced by the wishes of the property-owning class, and the nabobs who own the factories want no legislation that

will interfere with their divine right to deal with their employees as they please.

A Medieval Factory Law in Modern Japan

Indignant public opinion, however, finally compelled the enactment in 1911 of Japan's first and only national factory law. This law went into force in 1916. It is difficult to read the provisions of this law and believe that men of the twentieth century enacted it. In the light of the eight- and nine-hour working day of the West, it is strange to read the solemn provision of this law that little children shall not be required to work later than ten o'clock at night, and shall not be compelled to start work before four o'clock in the morning; that children and women shall not be required to work more than twelve hours a day except in periods like the present when war orders make it "necessary"; that operators who do night work shall not be required to work more than ten nights in succession; that little children shall not be employed where poisonous gases are generated. And then to find that before the law was enacted jokers were slipped into it which made such exceptions and time extensions that even these backward provisions were largely nullified! The whole law was apparently framed for the purpose of throwing a sop to public sentiment while leaving the powers of the factory owners practically unchanged.

The attitude of the Japanese government toward the worker is that of a rule-of-the-rod father toward



The Japanese government is a rule-of-the-rod father. Factory workers cannot vote, strikes are insubordination, and amendments make the one factory law practically worthless.

an incorrigible child. Of repression and punishment there is much; of encouragement, very little. The right to vote is forbidden to factory workers, the franchise being restricted to the property-owning class. Workingmen are not permitted to agitate for better conditions. Strikes of a nature recognized elsewhere as entirely legal are harshly suppressed in Japan and branded as insubordination and disloyalty. Labor unions are prohibited. Workmen who applied for permission to establish such a union were refused on the ground that "as reported, the promoters were men devoid of means, education, and credit, and hence disqualified to form such an organization."

The only organization which bears even the slightest resemblance to a Western labor union is the Laborers' Friendly Society. This society maintains for workmen, welfare departments for legal advice, savings, insurance, employment, medicine and hygiene, lectures, education, domestic economy, publications, and others. The organization, however, dares make but small attempt to secure better factory conditions for its members.

The leader of the Laborers' Friendly Society is Mr. Suzuki-Bunji, a Christian. He is a graduate in law of the Imperial University of Tokyo. The motto chosen for the society is "By the People for the People." In 1915 and again in 1916 Mr. Suzuki-Bunji visited the Pacific Coast of the United States, and sat in conventions of the American Federation of Labor as a fraternal delegate.

Another proof that the laboring class is beginning to move is shown by a report stating that in Japan in the year 1915 there were nine thousand workingmen out on strike, in 1916 ten thousand, and in the first eight months of 1917 thirty thousand were involved in strikes.

What Missions Are Doing

Christian agencies in Japan are alert to the needs of the factory population but find themselves inadequate to the situation.

Homes for factory girls, close to the factories in which they work, are conducted by the American Board in Matsuyama, the German Evangelical Association and the Canadian Methodists in Tokyo, the Church Missionary Society in Osaka, and the Episcopal Board Mission in Kumazaya. In these homes, living conditions are ideal.

The Institutional Church is still in its infancy, but the Baptists have one in Tokyo and the voluntary cooperation of its members in the practical work is a splendid feature.

The Young Men's Christian Association maintains night schools and employment agencies. Recently the provision of good moving pictures and a lecturer to explain the pictures, has been a useful extension of energy. The lecturer has been permitted to make addresses and to show the pictures in a few factories, mines, and schools.

The Salvation Army is doing a large work among

the unemployed men, housing, feeding, and financing them until they are able to find steady employment. Another piece of their "Good Samaritan" work is the "William Booth Sanitarium" on the outskirts of Tokyo, built for the treatment of tuberculosis patients among the poor.

Several other missions have tuberculosis sanitariums, and in 1912 the Anti-tuberculosis Association of Foreigners in Japan was founded as a result of missionary effort. It now has several hundred members, and issues a quarterly publication containing advice for those enlisted in the struggle to check the plague which causes over one hundred and thirty thousand deaths a year.

A Japanese Christian pastor, Rev. Yoshimichi Sugiura, has been the means of placing several hundred "down-and-outs" on their feet and making them self-supporting and self-respecting citizens in independent businesses.

Another Christian of Japan, Tamekichi Ito, tried to establish night schools for workingmen. He found, however, that their hours were so long that they could not readily come to his school. Therefore, he put his school into the form of a newspaper. It is very unlike the ordinary newspaper. It contains little about politics and the war, but has a great deal concerning living conditions, hygiene, sanitation, mathematics, physics, chemistry, economics, cooking, first aid to the injured, moral and spiritual laws, and similar matters. This periodical is a college of liberal arts that comes to the

working people instead of requiring the working people to come to it.

The Work of Christian Employers

Most encouraging of all is the splendid work that is being carried on by Christian employers themselves. Little is being done by non-Christian employers, although there are a few firms, such as the Kanegafuchi Spinning Company, doing welfare work. But the Christian firms are leading the way.

Work is begun daily with a prayer service and ended with a prayer service in the Homma Shimpei's marble quarry. On Sunday a preaching service is held, Mr. Homma himself acting as preacher. Nor does he merely preach. He is constantly guarding the health and welfare of his employees. Further than this, he anticipated Mr. Ford's profit-sharing scheme, by dividing the profits of his business among his workmen every year on his birthday.

Other great industrial enterprises, whose products are known throughout Japan, such as the Lion Denti-frice Company, the Fukuin Printing Company, the Yamato Silk Store, the Fuji Tea Company, and many others, owe at least part of their greatness to the fact that their proprietors have been Christians who have found that it pays to apply religion to business.

Of special interest is the story of Mr. Hatano. When he was a young man, he stole his wife's fortune and went away to the city, where he squandered all in wild living. Then, sick and penniless, he returned

home only to be repudiated by his relatives and acquaintances. At last his mother had pity on her prodigal son and took him in, but yet the community would have none of him. His degradation and disgrace were complete. Then he heard the message of hope from a Christian preacher and soon after was converted. A remarkable change took place in Mr. Hatano's character. He became buoyant and ambitious and returned with kindness the snubs and insults which were accorded him. He began a silk business on a petty scale; and that business has now grown to be one of the great enterprises of modern Japan. The foundation-stone of his business has been the development of sound character in his employees. He has taken Matthew 7. 17, 18 as the watchword of his company and of the Silk Workers' Training School which is connected with it. Just as a good tree is necessary to produce good fruit, so this business man believes good character is necessary to produce good silk thread. His thread is now granted to be the best in Japan. Many firms have tried to duplicate Mr. Hatano's success by installing identically the same machinery and equipment. They have thought that such would be sufficient, and have considered it nonsense to bother to duplicate the religious, educational, social, and recreational facilities which he provides for his workers. They have failed because they have ignored the main feature of his plan, which is the development of character.

The Japanese government is worried over the fact

that complaints are so frequently heard concerning the inferior quality of Japan's exports. It is feared that the trade built up during the war may be eventually lost. The government is therefore planning to place inspectors in the ports, and to prevent goods of poor quality from leaving the country.

It is a question whether it might not be wiser for the Japanese government to step back into the factories where these shoddy goods are produced, and learn whether the quality might not be improved by renewing the bodies, quickening the minds, and restoring the souls of those dreary toilers upon whose work depends the reputation of Japan.

III

TREES AND MEN

III

TREES AND MEN

Trees!

Trees and prosperity. Lack of trees and poverty. Trees and uprightness. Lack of trees and crime. Trees and the poetry of ideals. Lack of trees and a barren soul.

In China has been remarkably demonstrated the unique relation between human well-being and trees.

China is a land of desperate toil. It would be hard to find in all the United States a man willing to accept the task of a horse and run through the streets and drag you behind him in a cart. And yet, in the city of Peking alone, there are more than forty thousand riksha runners. Streaming with perspiration, muscles straining, varicose veins bulging, they drag at a trot their exacting patrons from one end of the city to the other for a few cents. The average working term of a riksha runner is four years. He spends the rest of his life as an invalid. The chair-bearer is slightly better off in that he can support the strain of his work eight years before he is rendered helpless. An examination of carrying-coolies shows that only a slight proportion of them are free from heart trouble caused by the bearing of heavy loads.

What is the reason for this desperate cry for work, no matter how killing; for burdens, no matter how crushing? What lies back of it all? Many factors, but looming large among them—*lack of trees!*

A Treeless Land Is a Hungry Land

China is a hungry land. Instead of the question, "How do you make your living?" the common query in one province of China is, "How do you get through the day?" It has been estimated that eighty per cent. of the conversation of the common Chinese has to do with food. So extreme is the demand, that everything at all eatable finds its way at last to the Chinese table. Camels, horses, mules, donkeys, dogs, rats, edible bird's-nests, silkworms, pigskins—all are food for the humble folk in this land where starvation forbids dainty choosing. Why is immense China, with her tremendous land area, in want of food? A major reason is—*lack of trees!*

China is a land of pitiful thefts. A man will creep into your back yard to steal an empty, battered tin can, or a piece of wood as big as a pencil. Bolts and plates are forever disappearing from the railroad track—later to appear again in the form of chisels, razors, and scissors. The old hair is stolen from the hides of camels, and I have been told of a famine refugee who, in desperation, slashed off the cue of a countryman and ran away with it, selling it at a hairshop for three cents. This does not mean that honesty is rare among the Chinese; in a larger sense they are essentially hon-

est. And yet these petty, pitiful thefts continue. The purloining of such trifles indicates the direst need on the part of those who do the stealing. And again, under and behind this need, we find as one of the dominating causes—*lack of trees!*

Deforested Mountains Mean Floods and Famine

Why this strange dependence of labor, hunger, and crime upon what is apparently so impersonal a matter as lack of trees?

Imagine a mountain slope clothed with forest. A heavy rain falls. The drops percolate down through the leaves of the trees and find their way to the ground through a maze of grass and twigs. Slowly, very slowly, the water seeps down the mountainside through the obstructive tangle of underbrush. This process may take a week or more and the next heavy rain has come and gone before the water supplied by the first has finally reached the river in the valley. Thus the forest automatically regulates the flow, and month in and month out, the level of the river may never vary more than an inch or two. Moreover, the interlacing roots of the forest have held the soil firmly in place so that the springs and mountain rivulets could not wash it away. Hence, the river water is without sediment, clear, and pure.

Now imagine that same mountain slope entirely denuded of trees. There is not a green thing to be seen—the mountain is nothing but a gigantic pile of barren, tan-colored earth. A heavy rain falls and

the water rushes down the slope with nothing to impede its progress; every gully, formerly dry, now accommodates a furious torrent; each particle of water tears up a particle of earth and carries it along. The result is that within a few hours thousands of gallons of water and thousands of tons of earth are dumped into the river in the valley. The river, lashed into a turbid rage, stampedes toward the sea. Every bare mountain along its course contributes fresh torrents. When the river at last reaches the plain, it has risen ten, twenty, or thirty feet above its ordinary level.

Now this river for ages has been bringing down vast quantities of sediment, which gradually built up the river-bed until at present the river flows along far above the heads of the inhabitants of the plain. As the sand-bars in the river have developed, the people, instead of digging out the bars, have simply built higher the banks. Thousands of miles of levees and dikes border the Hwangho, the Han, and other uplifted rivers of China. The country on either side slopes up to the river, as a roof slopes up to the ridge-pole—and along the ridge-pole flows the stream. It is a dangerous location for a stream.

And so it happens that when the rainfall is heavy on the deforested mountains, the formerly peaceable river becomes a ruthless giant who surmounts or tears down the dikes, submerges thousands of acres of land under a foot or more of water, destroys millions of dollars' worth of agricultural products, the food of the people, and sends millions of jobless, homeless,

famine-stricken people packing to the cities. There they must plead for any work, no matter how hard; for any food, no matter how meager or repellent; for any manner of existence, no matter if it be obtained by so contemptible a means as petty thievery or beggary.

Every year flood-born famine and pestilence stalk abroad in some part of China. Floods on the plains of the northern provinces of Kiangsu and Anhwei are so frequent and the famines so acute that now over this whole area the farmers do not average more than two crops in five years; whereas, if there were no floods, the normal condition would be a large crop every summer and a small crop every winter.

To rectify the present condition would mean, as a Red Cross engineer says: "The elimination of the suffering, starving, and degeneration of several millions of people who are now fast becoming beggars and robbers; the turning into producers millions who are now not only non-producers but are becoming a menace to the country." And the brunt of such calamities does not fall merely on the people in the famine districts.

In China, as elsewhere, man cannot live unto himself alone. Whenever part of the nation's food is destroyed and a group of the nation's workers rendered helpless and dependent, there is not a man, woman, or child in the entire republic who does not directly or indirectly suffer the resultant economic shock.

Wood as Precious as Money

Why are the Chinese mountains bare of trees? Is it because of poor soil or unfavorable climate? Neither. The soil and climate in most parts of China are excellent for agriculture, fruit-raising, and forest planting. Deforestation is rather due to the density of population and the tremendous demand for fuel. Not only the trees, but the shrubs, saplings, seedlings, and even the grasses are rooted up to be put in the fires for the cooking of food. In the north of China every morning village-boys scale the mountains watching for the tiniest shoot of green projecting from the brown earth. So rare and precious is wood in some provinces that small bits of bamboo are used as currency.

The selfish and short-sighted government of the old days did not establish laws regulating the use of the forests or providing for the planting and protection of saplings. For ages the process of stripping the hillsides went on unchecked until now extensive areas of the country, especially in the northern provinces, are completely bare. There is no more desolate looking landscape in any well-populated part of the world than those stretches of gaunt yellow hills in North China. The process has gone on until the only material for firemaking in many sections is brush and weeds, and as for building lumber, that has to be imported from the United States, the Philippines, Hainan, Formosa, and Chosen.

What Bailie Saw Under Straw Mats

And now we come to the wonder-tale of the red-bearded Irishman who thrust his burly head above the mental horizon of the Orient and by the light of his intelligence and the warmth of his sympathy awakened China to her great need.

That man was Joseph Bailie, who had been enrolled under an American mission board as a professor of mathematics in Nanking University.

One morning in 1910 Joseph Bailie went abroad in the city of Nanking, peeking under straw mats. Beneath lay the victims of famine, and the mats were their only shelter. More than one hundred thousand famine refugees were festering, like evil sores, in and about Nanking. It was a sight to stamp the memory for all time: the drawn faces of the living, the gray masks of the dead, the young girl rolling about in the dust in the delirium of fever; the mother and children sitting in dull hopelessness around the still body of the father; the baby boy tugging at his dead mother's rags and wailing because she would not get up and care for him; the wholesale fight of a crowd of men contesting for a dirt-ingrained scrap of bread not two inches square; the tragic, bewildered stare of the thousands who had given up and were merely waiting for the mist to close down over their eyes and over their pain.

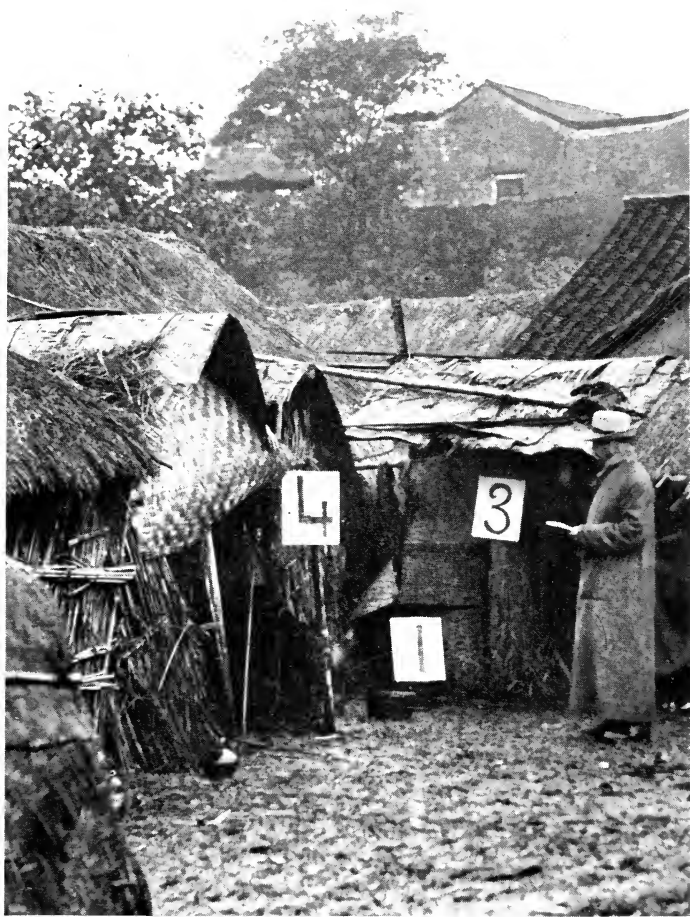
These are the sights to be seen whenever the rivers overflow. The ordinary spectator saw and pitied; Bailie saw and thought.

He and other missionaries had been doling out food to some of these refugees. And yet how little impression had been made! One missionary had been heard to say that he felt proud and grateful to have the opportunity of doing such work. Bailie did not feel proud and grateful; instead he felt humiliated and disgraced by the hopelessness and littleness of what he and the others had been doing.

He came to the grounds of the old examination halls. Here a Chinese relief agency, the Chung Ren Tang or Guild of Mercy, was distributing rice gruel to twenty thousand people every day. What a splendid service! And yet how "splendid"? To be sure, some lives were saved. But the work was so slight in proportion to the problem that in most cases it merely accomplished a postponement of death for a few days, so that a man, instead of dying on Monday, died on Friday. And the next year there would probably be another famine and more food would be doled out, and this would be repeated the next year, and the next year, and the next.

The Best Cure Is Prevention

There are two ways of attending to a leaky pail. One is to keep pouring water into it everlastingly so that it may remain full. The other is to plug up the leak. Surely there can be no question as to which method is the more sensible. And yet the best citizens and foreigners in Nanking, their hearts thrilling to the nobility of their task, continued to pour a pitiful



Peering into straw huts at the dying victims of famine roused Bailie's determination to prevent famine with trees.

stream of rice porridge down the bottomless throat of Famine.

Upon reaching the ancient examination halls, Bailie was met by a guard of soldiers armed with heavy sticks and led through the frantic, starving mob until he reached the battalion of immense pots or kang containing the rice porridge.

He was brought to a Mr. Chang, a fine old Chinese, who was directing the work. Bailie sincerely complimented him upon the good that he was doing, for Bailie knew that to feed the hungry is always good work, even though there may sometimes be a better work.

Then the substance of the conversation was about as follows:

"What steps," said Bailie, "are being taken to avert another such disaster?"

Mr. Chang shrugged his shoulders.

"That must be done by the officials," he answered. "No private person dare attempt any such thing."

Bailie now spoke aloud the great idea that had been taking form in his mind during the last few days.

"There is plenty of waste land yonder," he said, pointing to Purple Mountain which reared its immense bulk just beyond the edge of the city. "Why could not some of these people be put to work in breaking up and planting some of that land? The money that is now being spent in giving rice might be used in paying them. After the lands have been improved they can be given to refugees who have no land, and in

that way a large number of these people can be put beyond want and made permanently self-supporting."

"But I have not the power to secure these lands," said Mr. Chang, and turned back to his work.

Paupers Made Self-Supporting Farmers

Bailie had no more power than Mr. Chang, but he did not give up so easily. It took nearly three years of hard fighting to obtain enough money from foreign friends and to bring enough pressure to bear upon local officials to secure those lands. Then Professor Bailie organized a local branch of the Chinese Colonization Association and placed in its hands one thousand English acres of land on the slope of Purple Mountain. Wealthy Chinese, who had formerly opposed his project, were impressed by his indomitable perseverance, and now cheerfully became members of the new organization. Although the flood of the year 1910 was a thing of the past, its victims had not all disappeared and new floods had added to their numbers. Bailie had no difficulty in finding seven hundred starving men who were willing and eager to come out and till the land of Purple Mountain. The Colonization Association paid them a wage and thus they and their wives and children, several thousand people in all, were immediately lifted out of pauperism.

Professor Bailie's plan was to clear and drain a tract of land, using famine refugee laborers working in gangs under supervision. The men on this work

were to be watched, and from them would be selected a few who with their families, would be put in tentative occupation of farms from twenty to fifty *mow*¹ in area, with the prospect, if they proved industrious and honest, of becoming settled tenants.

The tenants would be assisted until the first crop was harvested and would thereafter be expected to support themselves and, in addition, to pay taxes sufficient to meet any government tax on the property, and interest on the money expended, in giving them a start until the whole sum was repaid.

Of course Bailie could not rehabilitate all the famine refugees of China. He could directly help only a few hundred or a few thousand at most. But he had sufficient faith in his experiment to believe that its success would establish a method which the central government, as well as private agencies, could apply elsewhere throughout China and thus help the millions.

Ancestor Worship versus Bailie Logic

When Bailie set out to till his land, his first problem was graves. Many of the good, level, tillable spaces on the mountainside were covered with the homes of the dead. China, of course, is the land of ancestor-worship and to desecrate the abiding-place of the worshiped beings would be quite out of the question. Bailie, however, was fully accustomed

¹ In this connection six *mow* equal one acre. A *mow* or *mao* differs in measurement in the various sections of China.

to doing things that were apparently out of the question. He set his men to work digging up the graves.

The coffins were removed to a cemetery. Wherever a coffin was taken out, the spot was marked with a number and the new grave was marked with the same number. In most cases, however, the graves were so ancient that no trace of coffin or corpse was visible. Very soon the inevitable happened. The gentry of the countryside held a meeting and from this meeting a deputation was sent to reason with Professor Bailie.

"How is it," said their spokesman, "that you, being a good man and wanting to benefit our country, have come out here to tear up these graves?"

Bailie carries a spirit of hearty good-fellowship around with him. He welcomed his visitors cordially and invited them to go up and examine the graves for themselves. He was genial and they had such a good time that it is probable he had them practically won over to his point of view even before he told them what his point of view was. There are personalities who are capable of that. When they had looked about he said to them:

"As you see, these graves are very old and have no owners. In most cases there is no trace of occupancy, but whenever any remains are found they are respectfully boxed up and buried in a cemetery. Moreover, gentlemen, these dead do not require so much land, whereas these hundreds of families who are breaking up the land are dying from hunger."

“Uai kueh ren puh tso,” said the spokesman, turning to his colleagues. “The foreigner isn’t far astray.” And after chatting a while longer with Bailie and some of his men, they all went away satisfied.

Dead Are More Important Than the Living

This question of graves has a vital bearing upon the subsistence of the workers of China, and Bailie feels very strongly about it. He says: “The present system, or lack of system, of burial in China is a curse to the country. Public cemeteries should be laid out and properly beautified and the people should be compelled to bury their dead there; to move those buried in other places to their family plot in the cemetery, and should be placed under a heavy fine if they refuse to do so. Failing this, it is next to impossible to use the vacant lands of these provinces, as there are so many graves scattered about in whatever place the *fung-shui*¹ doctrine determined. No sooner does any one begin to use the land near the grave than some wicked, designing person who wants to blackmail the really good workingmen, raises a hornet’s nest, and so fearful do

¹ *Fung-shui* (wind and rain) denotes the beneficent atmospheric influence. Burial-places are selected with caution so that the propitiatory measures may procure a reactionary protection of the dead ancestors. Rivers, brooks, lakes, and ponds, even when dry, are supposed to be perfect bearers of the so-called *shui-shen* or *shui-ling* or spirits of aquatic divinity. Bad winds may be controlled by rocks, and other conditions must be considered.

all become of seeming to be employed in the leveling of graves that rather than bear the odium attached to it, they simply leave the whole district undeveloped. The country that attaches more importance to the graves of the dead than it does to the lives of its present inhabitants, and will allow the grave of General Wong to occupy ten *mow* of good land maintained in an unkempt condition while the Chen family of seven mouths have a hut on a corner of this same grave, and attempt to support themselves by digging roots of trees and the like from this and the hundreds of graves surrounding—while they are most anxious to break up and cultivate some of this very land—the country, I say, that does this is committing suicide and will have its land full of the graves of the wealthy dead and the poor unprovided for. Surely it is time for China to wake up on this question. If she does not use these lands in time to come some other people will.”¹

So successful was Bailie's colonization work that not only did the Chinese government give the Association an additional ten thousand acres of Purple Mountain, but another large tract of land was secured at Lai An Hsien and another branch association was organized there.

Formerly this country was infested with robbers. Now robbery is almost unknown. And Bailie ascribes as the explanation the fact that the Association is employing and feeding the robbers! Now, at Purple

¹ *China's Young Men*, January, 1915.

Mountain and Lai An Hsien, the huts of colonists and their well-tilled fields cover thousands of acres that were formerly waste lands and considered absolutely worthless for cultivation. Starving, penniless refugees have been financially helped in beginning homes and farms, and have later paid back with interest all that was expended upon them. Paupers, beggars, and robbers have been transformed into self-respecting, self-reliant citizens.

Mr. Bailie demonstrated to the Chinese government, which was watching his experiment closely, three things: first, that much land now regarded as useless is fit for agriculture; second, that agricultural loans are fully practicable; third, that honest work will do more than alms for famine refugees.

Giving China a Lesson in Forestation

But Bailie did not stop there. He knew that while it is better to employ than to pauperize a famine victim, it would be even better to prevent the famine. He knew that behind famine is flood and behind flood is lack of trees. Therefore he resolved that there should be set before the eyes of China a great object-lesson in forestation.

Accordingly, he looked about for a place to establish a tree nursery. The task must have seemed hopeless enough to his companions, for Purple Mountain was a barren hill and there was no soil that was good enough to serve the purposes of a first-class nursery, but Bailie, as usual, soon had an inspiration. Not far

away was a large, stagnant pond which went under the inappropriately attractive name of Lotus Lake. Bailie put a regiment of his one-time paupers, now eager, competent workers, on the job of digging up the humus from the bottom of Lotus Lake, breaking it into fine particles, mixing it with heavy clay soil and a little sand, and carting it to the site chosen for the nursery. Thus Bailie took up the floor of a lake and plastered it on the mountainside half-way up to serve as a breeding-ground for his forests. When three thousand cart-loads of the material had been deposited, seeds were planted, and after the seedlings had attained some growth they were transplanted in the cruder soil of the mountain. Thousands upon thousands of lusty young trees, black locust, walnut, yellow pine, white pine, ginkgo, candleberry trees, maple, Osage orange, apple, pear, peach, persimmon, apricot, plum, prune, cherry, fig, and many others were so planted.

But even the course of common sense does not always run quite smoothly. Superstition entered the scene and in a few hours destroyed two hundred thousand of Bailie's trees. An old woman burning paper money at the grave of her ancestors inadvertently started a fire which before it could be put out, burnt over the entire flank of the mountain.

Needless to say, this disaster did not halt Bailie but merely gave him another of his inevitable inspirations. He would plant more trees and, at regular intervals, make long, treeless strips or fire-breaks forty feet

wide, just wide enough so that no ordinary fire could jump them. Moreover, up and down these strips he would build brick houses in which would be established colonists who would cultivate the land of the fire-breaks, and incidentally guard the forest in their vicinity. Thus the work of forest protection would be automatic and would cost nothing.

This plan was carried out, and when Joseph Bailie took me to his mountain one rainy, midsummer day in 1915, I saw rising up into the shower a giant of nature wearing a striped dress of green and yellow, the green being forest and the yellow the fire-breaks. Occasionally on the fire-breaks appeared a red spot which marked the brick home of a colonizing family. We tramped through the rain and mud from house to house. I have never seen broader smiles than those which greeted Bailie. No man ever got a more heart-felt welcome than did this big, genial Irishman in his rough clothes and rubber boots up to his knees—Bailie the farmer, but also Bailie the mathematician, who knew how to put two and two together to make human happiness.

The Nation's First Arbor Day

Without any apparent reason Mr. Bailie led me through a series of mud-holes to a small knoll where, so far as one could make out, there was absolutely nothing to see. Almost under foot was an unimportant-looking sprig a few inches tall. "This," said Bailie, "is the most distinguished tree on the whole mountain."

After he had told me its story I realized that probably he should have called it not merely the most distinguished tree on the mountain, but the most distinguished in all China. That little sprig represented the first official tree-planting in the history of China. On the day that it was put in the ground, Arbor Day was established for the whole nation. The tree was planted by the Minister of Agriculture and Commerce of the Chinese Republic. His Excellency Chang Chien, had long been watching and admiring Bailie's work and at his request the distinguished man made a special trip to Nanking and with many other prominent officials visited Purple Mountain, where he took the chief part in a formal ceremony of tree-planting, which, as he said, was symbolical, for it was the beginning and example of a great movement. In his address following the ceremony he expressed his hope that the particular tree which he had planted would live and grow; and his greater hope that the idea which the tree represented would also live and would scatter its seed in the farthest reaches of the republic.

It is interesting to note that the day which Irish wit had suggested as the national Arbor Day of China was already a national holiday called Ching Ming, upon which occasion multitudes of people were accustomed to go out into the country and burn bushes, or chop down small trees or shrubs that had grown up around the graves of their ancestors. Now the day of forest destruction had been converted, by au-

thority of the Chinese government, into a day of protection and propagation.

A New Vocation for China's Youth

There was another event that the Minister of Agriculture and Commerce celebrated during his visit to Nanking. This was the fruition of another of Bailie's dreams—the official opening of the School of Forestry of the University of Nanking, the first school of its kind in China. Bailie had not been content to present his afforested mountain as a great example to China. He wanted to train young forestry experts who would take the message of forestation to the farthest parts of the republic.

In organizing this project he was aided by the advice and cooperation of Major Ahern, Director of the Bureau of Forestry of the Philippines. The new school of forestry opened on March 15, 1915, with an initial enrolment of seventeen students. The Chinese government made an appropriation of three thousand dollars to the school and substantial help was also given by the Famine Relief Committee, the governor of Anhwei, the governor of Shantung, and others.

At first the students were put to work on the study of English. A knowledge of English was necessary before the literature of forestry could be studied, since there is no literature of value on that subject in the Chinese language. In the meantime, however, the students were given practical field work and plenty

of it. The thousands of workmen engaged in agriculture, tree planting, and building on Purple Mountain, required supervision. The students soon learned that supervision did not mean standing on a hilltop and shouting orders. It meant getting right down among the coolies and doing everything from digging fertilizer and carrying bricks, to preparing chicken feed. In China it has been considered a disgrace to work with the hands. Fine gentlemen permit their finger nails to grow out slender and fragile an inch or two in length to serve as an indication that they never do any manual work. What an experience it was for the sons of nobility, and the grandson of a cabinet official, who was one of the pupils, to get their hands blistered and bleeding, and their delicate bodies sweating in common labor, shoulder to shoulder with an army of illiterate famine refugees! But Bailie did it, too, and he was stern in the requirements that he made upon his young foresters, coolie and gentleman alike.

The Day of Long Finger Nails Is Passing

"The credit for taking care of cattle and fowls," Bailie wrote to a Chinese newspaper, "for digging a drain, plowing a furrow, preparing land for a nursery, planting the seeds and trees, and pruning trees, will count just as much as knowledge of agronomy or plant physiology. The student who will not learn the use of the pick and shovel, the plow, the seeder, and the mower will be treated in the Department of Agricul-

ture just as a student who will not learn to use the knife or the forceps in the Department of Medicine would be treated. The decision as to whether a student will be permitted to take his second and third years' course will depend to a great extent on how he has learned his field work during the first year, and especially on his practical efficiency. We want to train men who can go out and take charge of a school and experimental station on an estate, and a man who is accustomed to take responsibility while in school will find no difficulty in the transition from Nanking to a new post. Men who are looking forward to making the knowledge gained at our school a means of gaining an official position, or of acquiring any situation by which they can sit in an office and get other men to do the actual work, will be disappointed if they apply and are admitted. There are, according to to-day's paper (May 14, 1914) one hundred and ten thousand office-seekers in Peking now, which is sufficient, whereas I don't know of one hundred and ten men—qualified—actually 'on the job' in industrial concerns. Any fellow who has the grit to work and isn't afraid to dirty his hands and shoes when the occasion demands it, will find himself in congenial company among us."

The introduction of the conception of the dignity of labor is one of the finest of Bailie's achievements. China will not move ahead industrially until her men of education learn that to practise coal-mining, agriculture, and other industries of the shovel and hoe, is

just as worthy as to practise the dainty art of calligraphy with a gold-mounted brush.

Scholar as Well as Farmer

However, although Bailie believed in plenty of field work, he also believed that practical efficiency must be backed up by a thorough training in theory. His class work is as stiff as his field work. Here, for example, are some of the courses of study prescribed for his students in agriculture and forestry during their term of four years in the University: English, Chinese, biology, inorganic chemistry, geology, soil technology, surveying, qualitative chemical analysis, botany, farm crops, silvics, meteorology, quantitative chemical analysis, entomology, horticulture, plant physiology, manures and fertilizers, principles of forestry, agricultural chemistry, economic entomology, taxonomy of the higher plants, economics, animal husbandry, rural economics, fish culture, methods of experimentation, farm management, poultry management, pomology, irrigation and drainage, rural social conditions, plant breeding, forest seeding and planting, dendrology, forest laws, forest utilization, forest physiography, forest entomology, history of forestry, forest mensuration, forest finance, wood technology, forest pathology, wood preservation, forest-working plans.

Bailie has not only proved himself to be a good mathematician, a scientific farmer, and a great humanist with a practical working sympathy for China's millions of non-producers, who he thinks can be made

happy and efficient producers, but he has also shown himself to be a thorough scholar and educator.

So impressed was the Chinese government by the nature of the training that was being given at Nanking University, that they finally proposed to disband the Government School of Forestry which they had been maintaining in Peking, and to send twenty-four of their best students to Nanking where they would continue their work under the direction of Professor Bailie. The Minister of Agriculture and Commerce, in suggesting the change, told Mr. Bailie frankly that the Government School, in spite of all the money that had been put into it, was not as efficient as his, and spoke of the Nanking school in flattering terms. Thus Bailie's school was indorsed as the pivotal institution of the nation for the teaching of agriculture and forestry.

Thinking in Terms of Men, Not Trees

It is characteristic of Bailie that he never thinks merely in terms of trees, or plows, or vegetables, but always in terms of the human element, the workers of China and those who should be workers and are not. This appears in his colonization work for giving jobs to people who had none, and in his forestation work for preventing flood and famine from taking away jobs from people who had them.

The same spirit is evident in his establishment of a so-called "Tree-Seed Exchange." He was not particularly interested in tree-seeds, but in the people who

would gather them. His proposal was that the poor of China should collect seeds and send them to him to be paid for at a good rate, and that the seeds should be used either in his own forestation projects or sold in the open market.

His reasons for purchasing Chinese seeds in preference to buying from foreign countries were given by him as follows:

“1. All the money paid goes to help the poor of China.

“2. This is in reality creating a new industry and one badly needed to help us in forestry work.

“3. We shall enlist the services of the very poor and of those who are now destitute. These people are at present the greatest enemies to forestry in China, as the poor creatures cut down and dig up roots to sell for a few cents with which to purchase food to keep themselves alive. Now if we can enlist great numbers of these, even for a short time every year, in collecting tree-seeds for which we pay a fair price, they will soon begin to realize that it is to their own advantage to protect the trees. As most of the seeds would be collected by the children we would be educating the rising generation in forestry. The purchasing of native tree-seeds would convert the greatest enemies of forestry into our best friends and co-workers.

“4. The native trees are more likely to succeed than those imported.

“5. The seeds purchased from foreign countries



China learns to plant trees. Arbor Day, introduced by the farmer-missionary of Nanking University, is now observed throughout the nation.

cost, laid down here, from ten to five hundred times the cost of native seeds, of the very same kinds, and at the same time a very big risk is run in importing seeds, since a great many lose their power of germination in crossing the ocean.

"6. Now that the vacant hills are so many and the seed-bearing trees so few, compared with the great areas to be planted, we need to conserve all the seeds we can, of course using judgment in the selection of the seeds that we handle. Every one hundred dollars spent this coming autumn in purchasing seeds from the poor in China, not only relieves that much want, but makes it possible to have several millions of young trees for planting.

"Let us all join in developing the natural resources of China, using the things that are running to waste around us to help in making this country what it must one day become, the greatest and most beautiful country on God's earth."

Securing Action on the Part of the Government

In all his activities it was Professor Bailie's ambition to stimulate to action the Chinese government which, being the most powerful agency in the nation, was best fitted to spread the gospel of the conservation of life and labor throughout China. This ambition is being realized. Provincial governors are coming from afar to look at Bailie's work, and they go back and start similar or related work in their own provinces. The Governor of Anhwei requested Bailie's

assistance in starting no less than seven great enterprises in his province: 1, the afforestation of the mountains of the province; 2, the development of a stock ranch and general farm; 3, the development of the alkali beds of the province; 4, the development of a tannery; 5, the development of the manufacture of phosphorus from bones and the manufacture of bone manure; 6, the manufacture of straw hats; 7, the development of the manufacture of paper. Professor Bailie cooperated in this plan by securing Christian experts from America to head these industries.

The Chinese Arbor Day, conceived by Joseph Bailie, inaugurated on the slope of Purple Mountain, was later officially established by Presidential mandate, and is now observed annually throughout the republic. The government issues a pamphlet in which a planting ceremony is outlined and the following suggestions are given:

“After the planting ceremony is over the students might be given an opportunity to write or to discuss the importance of forest trees; how they supply material for homes, for fuel, and for thousands of industries; how they store water for streams to quench men’s thirst, to irrigate their lands, to drive their mills, and to fill their river streams for vast traffic of inland navigation; how they influence rainfall, humidity, sanitation; and how they protect useful wild life and increase the beauty of the country.”

From the tenor of these suggestions it may be concluded that the government has caught a very real

glimpse of the significance of forestation. The observance of Arbor Day will spread this knowledge, which has already been gained by the officials, throughout the great mass of the people.

Day of Uprooting Made a Day of Tree-Planting

In 1916 tens of thousands of trees were planted by school children, and by the military in all sections of China. In the Province of Kiangsi alone twelve thousand trees were planted on the day formerly observed for tree destruction. When Arbor Day came around in the year 1917, the festival was personally attended for the first time by the President of the republic in the sacred grounds of the Temple of Heaven—where emperors used to bend their knees in the worship of heaven, and earth, and the gods of war. Although the day of gold brocade, chants, and burnt offerings is past, still the modern ceremony of tree-planting was conducted not without some quaint touches of Oriental dignity. Here is the official program as published in the *Peking Gazette* on the morning of Arbor Day:

“When the President arrives the band plays music and all the officials will rise and take off their hats. The Minister of Agriculture and Commerce will escort the President to the rest-room. The official in charge will then report to the Minister of Agriculture and Commerce that everything is ready, upon which the latter escorts the President to the ground for tree-planting. The President will be followed in the pro-

cession by the premier, the cabinet ministers, and other officials. When the President arrives at the ground, one official in charge will support the tree to be planted while another requests the President to perform the ceremony. The President will then personally dig the ground and plant the tree. He also waters the tree three times. This ceremony will be reported by the premier and other officials. The President will leave the ground with the band playing and the officials baring their heads."

Many hundreds of trees were planted on that day. A large part of the grounds of the Temple of Heaven had been permanently set aside for afforestation and experimentation. Places formerly occupied by the trappings of ceremonial worship were now taken up by agricultural exhibits consisting of samples of lumber, seeds, trees, and plants collected from all parts of China. At the present time the trees that have been taken from the nurseries of the Temple of Heaven and transplanted on the hills near Peking number considerably more than half a million. Arbor Day has become firmly established. And in many parts of China the people do not even wait for Arbor Day. Many occasions of rejoicing, such as marriages, births, and festivals, are commemorated by a tree-planting. China is getting the tree-planting habit.

Experimental Stations Established

Another reaction of Bailie's work upon those in authority is seen in the establishment by the govern-

ment of forestry experimental stations in many parts of China. No station was opened in Kiangsi, but Bailie's mountain was officially named as the experimental station for that province.

Recently a regular Forest Service, with large scope, has been inaugurated. Its stated purpose is to reforest waste lands, thus aiding the common people by relieving the present scarcity and high price of timber and fire-wood; to reforest the more important river sheds, thus preventing the rivers from flooding and wiping out the employment of hundreds of thousands of the nation's producers; to protect the existing forests; to encourage private parties to take up forestry as a profitable business; to conduct a vigorous pro-forestry publicity campaign for the education of all classes of the people; and to train up a corps of young Chinese experts to help direct the colossal job of reforesting China.

Thus Bailie's work is being multiplied. It is doubtful if any other one man has done as much for the workers of China.

Lifting the Eyes of China's Toilers

Look again at the picture of the past. Floods dumped millions of people jobless on the cities. They glutted the labor market. They brought down wages by their competition. They increased the number and decreased the pay of riksha runners, domestic servants, and factory workers. They indulged in petty theft in order to keep alive. They raised the cost of

farm products by their natural demand for food while their farms, which should have been producing food, were lying idle.

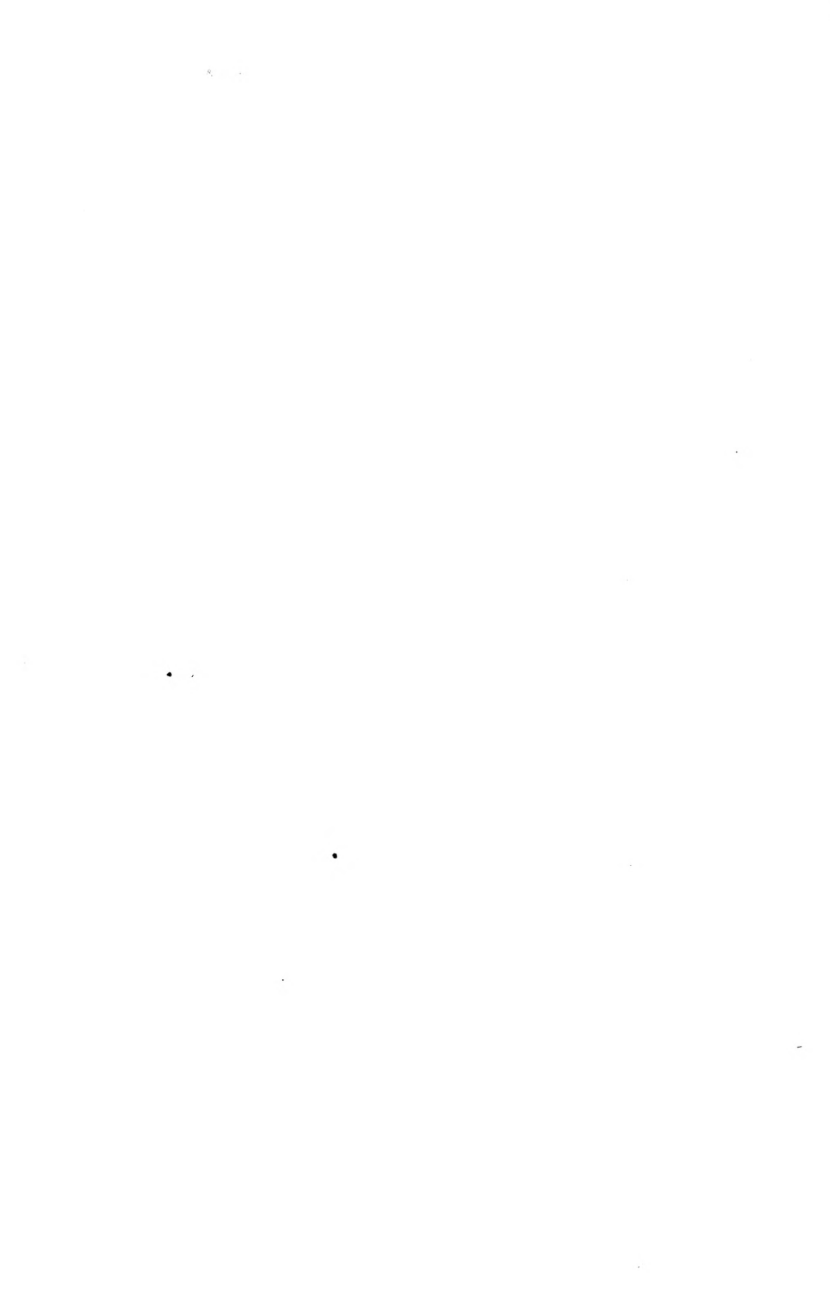
Now turn to the picture of the future. In a reforested China it will be possible for these people to remain in employment on their farms. They will keep low the national cost of living by their uninterrupted production of foodstuffs. Because they stay out of the cities, competition there will be less severe, wages higher, treatment of employees better, hours shorter, and toil in general less grinding.

It should be with a sense of divine assurance that Joseph Bailie, true Christian missionary, continues his loving labor of unbending the backs of China's toilers so that they may stand erect for the first time; may lift up their eyes from the dirt of the struggle for existence; may gaze out with enlightened vision over an unfamiliar world of knowledge; perhaps even may look up and see the stars!

IV

REGENERATING A RACE WITH TOOLS AND BIBLES

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“Any Filipino who can scribble dog verse is a songster, a new Shelley, a budding Omar Khayyam. The population of the Philippines is ninety-nine per cent. poets and one per cent. farmers.”

So wrote a critic of the Filipinos. He would not be correct in making such comment to-day. The work of the United States in transforming millions of easy-going, tropical “poets” into progressive farmers, manufacturers, and merchants is an achievement with few parallels in history.

Only eighteen years have elapsed since the United States began its work of civilization in the Philippines. The changes that have been wrought are such as would require a hundred years in the ordinary development of nations. And so silently has this big revolution been effected that many Americans still stand unaware of it. In fact, little is known in this country concerning the Philippines. Men who return from that part of the world complain because some people in America do not seem to know whether the Philippines are one of St. Paul's Epistles or the plural of philopena.

A Boston business firm wrote to Manila on June the eighth and again two weeks later, saying on the latter date that they had received no answer to theirs of the eighth and insisting upon an immediate reply. This must have proved diverting to the Manila firm in view of the fact that to transport a letter to the Philippines and bring back a reply to America requires at least two months. A New York business house referred an inquiry from Panama to its agents in the Philippines, assuming that the two places were near neighbors, never dreaming that they were on opposite sides of the earth.

The Hub of the Oriental Wheel

The Philippines are a group of three thousand islands. The Orient circles around them like a gigantic wheel of which the Philippines form the hub. The islands of the Pacific lie on the east; the islands of Malaysia and Australasia on the south; Siam, Burma, and India on the west; China and Japan on the north.

The population of the Philippines is more than eight million and there are more than eight hundred million people within the sphere of influence of the islands. Therefore a colossal experiment in regeneration at this point has more than local significance. It means much in hope and example for the entire East.

The missionary problem of the Philippines is vitally affected by the work of the United States government. It is not as necessary for the church to conduct certain lines of work as in some mission fields because

the government has adequately provided for those needs. While the United States certainly has many industrial situations at home which are far from Christian, and unfortunately some of these have been carried into the Philippines, yet on the whole the influence of the American occupation of the islands has been exceedingly helpful. Although entirely separate, church and state are working hand in hand for common ends. The aim of both is to help the Philippines to avoid falling into those disastrous industrial entanglements which have caused endless trouble, and to establish just and friendly relationship among those who toil.

The Land of Continual Spring Fever

The Filipinos of twenty years ago were people of a languid and easy-going temperament whose ambitions were fully satisfied when their stomachs were. In such a comfortable land, where food grew so abundantly, and the weather was so warm that shelter and raiment were largely unnecessary, the stern qualities which characterize men of more vigorous climates were not developed. Farming methods were very crude. A wooden plow scratched the earth, seldom turning it for a depth of more than two or three inches. Only the great fertility of the soil made a successful harvest possible. "Many of them farmed," says one investigator, "like good Saint Isidore who prayed all day and left the field to the care of the angels."

Living was on a low plane. The more prosperous

native was called a *shoe hombre* because he had reached the pinnacle of wealth which made it possible for him to buy and wear shoes. Those who did possess money did not dream of investing it in useful undertakings. Instead they buried it or bought diamonds. Conditions differed widely of course in different parts of the islands. The Igorots and other wild tribes knew nothing of modern civilization. In other sections the natives had learned much from the Spanish.

The man who is most familiar with the metamorphosis, Dean C. Worcester, Secretary of the Interior of the Philippine Islands, describes the old-time schools as in some cases actually teaching idleness. "The education given was of little practical value. I found Igorot children in Lepanto studying geography. I asked a boy what the world was and he replied that it was a little yellow thing about the size of his hand! This was a fairly accurate description of a map, the significance of which had utterly failed to penetrate his understanding."

The child of any well-to-do family would be followed to school by a servant carrying his books. A scandal would have spread all over town if a child of good family had been seen carrying so much as a pad and pencil in his own hand.

There was a widespread contempt for manual labor. Those who had any aspiration desired to become orators, poets, lawyers, doctors, or government officials. Many who had secured professional training in law or

medicine never practised their professions. They found it more pleasant to live in genteel idleness, reposing on the prestige which their titles had given them.

Learning the Meaning of a Square Deal

What a stupendous task to set a whole population of idleness-lovers at productive work! And yet that has been largely accomplished. The fact that it has been done in so short a time speaks volumes, not only for American leadership, but for the innate capabilities of the Filipino.

Many obstacles had to be overcome—most of them obstacles of habit. An American contractor who wished to build an electric railroad in Manila advertised for laborers. When a large number had come he spoke to them, explaining the job, and invited them to begin work at once. The only answer was a murmur of dissatisfaction and a shaking of heads. Interpreters told him that the men were refusing to begin work until they had been paid a full week's wage in advance. Under the Spanish régime laborers had not uncommonly been employed for jobs on the completion of which they were turned off without payment, or with only a small fraction of the amount originally agreed upon. These men, therefore, were sadly wise—and to their minds all white men were alike.

Finally the irate contractor bethought himself of a collection of old brass checks. These were brought to light and one hung about the neck of each man

with the explanation that this was a new kind of money which would be changed into dollars on pay day. The men were then content to go to work. Within a few weeks they discovered that the checks were really of no value—but they also discovered that the American firm was treating them fairly and that they would not be cheated out of their wages.

As soon as the square-dealing of the Americans became known there was no difficulty in securing labor. Construction camps began to dot the country. A construction camp in the Philippines had certain peculiarities. It was found, for example, that the men worked best under the spur of music. Accordingly they were led to work each morning by a brass band which made the welkin ring with "There'll Be a Hot Time in the Old Town To-night." Arrived at the scene of operations, the men would assail their work with great enthusiasm. The music master would establish his band under a tree and then keep his eye on the men. When they seemed to lag, up would go his baton and crash, bang, out would roll the music that would set them leaping to their jobs again.

America Has Many Characteristics of a Mother

It took some time to get accustomed to the white man's implements. The shovel was handled awkwardly at first. Even after several months a workman, if startled or spoken to roughly, would revert in a panic to primitive custom, drop his shovel and begin to scoop up earth with his hands.

But the Americans did not always insist upon the use of Western implements. The Filipino or Chinese saw cuts by pulling. The American saw cuts by pushing, and the result is that the saw sometimes buckles and breaks. The Americans soon learned that the Oriental saw was better adapted to their purpose, and it was kept in use.

Managers had some difficulty in keeping their workmen constantly on the job. Many of the best laborers would sometimes be absent for days at a time. An engineer says: "One of the peculiar things with the native is that whenever he wants to go off it is always a case of his mother being dead. I know of one native who buried six mothers inside of three months. He was employed in the store room and I just let him off each time and kept account to see how far it would go."

Then some clear-minded manager saw the reason for this irregularity. These men had a strong domestic tendency and could not bear to be kept away for a long time from their families who were back in the hills. The manager built nipa shacks and established in them the families of the men and their household goods. The men were delighted. They were now content to stick to their work and the epidemic among mothers was checked.

English a Great Attraction

When the hundreds of new schools established by the American government were opened they were

flooded with children. In some places the parents came also, expecting that by the wonderful American methods they would be able to attain general wisdom within a few days. The English language was the great attraction. This they meant to learn in short order. They soon discovered that there was no royal express elevator to learning and a bad slump in attendance followed. The teacher labored hard to teach her pupils to say, "Good morning, Mrs. Kelly," and that was about all that was learned by the fathers and mothers of families before they grew weary of study and left the school. Some time afterwards, a judge summoned four warriors to court. Arriving, they bowed humbly and said, "Good morning, Mrs. Kelly." However, the perseverance of the teachers gradually built up a large attendance of students who were willing to study with thoroughness, and whose knowledge enlightened the homes from which they came.

Agriculture had a prominent place as a subject for study. The agriculture taught was not theoretical but practical, and, as every farmer knows, practical agriculture is hard work. Strapping young fellows who had made records in athletics but who did not fancy standing knee deep in the mud all day setting out rice plants, frequently begged to be let off, complaining that they could not "suffer the work."

An Aching Back Takes the Novelty Out of Farming

The novelty of farming at first interests a lad who has never used his hands, but a few days are enough



America is clothing body as well as mind in the Philippines. There are thirteen distinct industrial courses for girls, most of which teach better home-making.

to rub off the shiny veneer of novelty. The superintendent of the Central Luzon Agricultural School tells of an eager candidate, who said that if he were admitted he would work seven years if necessary. "His credentials being good it was decided to admit him on probation. After two or three days he had had enough. His palms were blistered, his back ached, his spirit was broken. He was a sorry boy when he came up, begging to let off. His seven years had dwindled down to three days."

And concerning another young fellow who presented himself at the office one day in full mourning, the superintendent relates: "The crêpe on his arm was very conspicuous and he had not even forgotten to put some on his hat. He told a most pitiful story of how his father had just died and that he was the only support left for two minor children of tender age." His story seemed plausible enough but the acting was a little overdone. An exchange of letters with people in the boy's home town brought the information that the father was not too dead to handle a switch as soon as he could lay hold of his son. But such instances rapidly became exceptional. American teachers, by their example as well as by their teaching, have done much to popularize industry. They did not seem afraid to carry packages through the streets, and they did not shrink from handling a hoe or driving a plow. In fact, they seemed to relish this sort of thing. A spirit of emulation took its slow hold upon the people. They wanted to be like the Americans.

The idol of their fancy had been the dandy about town, now it became the man who knew how to use his hands. "All the diplomacies of modern courts, cabinets and cabals," says Dr. Edwin Schell, "do not equal the subtle finesse in putting the Filipino boy to work. It is Tom Sawyer up to date. Not with whitewash and brush and fence to be covered, but with their American counterparts under the blazing tropic glare, with plow and hoe and corn to be grown." School children of the Philippines are now eager to do the work on the hundreds of school farms, the more than three thousand school gardens, and more than forty-eight thousand home gardens, all of which are under the supervision of the Bureau of Education.

Two Crops Where One Grew Before

An agricultural revolution is in progress. For many years some of the tribes carried on the cultivation of rice and did wonderful work in the building of rice terraces, but among the Negritos, Igorots, and other wild tribes the science of agriculture was still in the most primitive state. Tribes who had lived on the fertile prairies but considered the soil there unfit for cultivation and thought that they had to go to the scraggly hillsides and clear away, with great labor, enough of the trees and stumps and stones to make space for cultivation, have been shown how they can get far greater returns from the splendid prairie soil at their very doors. Now the plows are kept go-

ing day and night, and many of these farmers are becoming wealthy. So inoculated are they with the spirit of progress that in one town, for example, where a plow arrived in advance of the cattle to pull it, fifteen men promptly hitched themselves to it and kept it moving until the work animals arrived.

One tribe had the custom of clearing new farms each year and abandoning the old ones, for they were under the impression that a second crop would not grow on land that had been used. These people have been taught the rotation of crops and many of them now produce two crops each year on the same land.

The inhabitants of coral islands where there is no agricultural land have been taught sea-farming and are beginning to secure good returns from the collection and marketing of sponges, button shells, and trepang.

The modern threshing machine produces so much more grain from a stack of a given size than can be extracted by native methods, that the natives were sure at first that there must be a deposit of grain hidden away inside the machine, and insisted upon poking their heads in to see where it was. In the same way the modern sugar mill which extracts ninety per cent. of the sugar from the cane was a source of wonder to natives accustomed to the old-time wooden mill which extracts only twenty to fifty per cent. Poultry clubs have been developed throughout the country with such success that in 1916 the government was able to buy three hundred and thirty thousand dollars' worth

of eggs to help supply the war markets of the United States and Europe.

The islands now sell about nine million dollars' worth of hemp every year. American methods of cultivation and irrigation in one district increased the production of hemp by six hundred per cent.

American Agriculture Opens Filipino Eyes

Frequent agricultural fairs have been held and the natives marvel at the size of the vegetables displayed. One old Spaniard, looking at some large tomatoes, remarked that it was most excellent work for school children to make such *papier-mâché* products. The exhibitor explained to him that the tomatoes had been grown in school gardens. This information was received with very evident doubt. The Spaniard, though too polite to say so, was apparently convinced that the exhibitor was trying to fool him. One of the finest tomatoes was handed to him and he was requested to insert his thumb into the juicy contents until he was persuaded that it was the genuine article, an edible tomato.

Savages of Moroland, who had been fighting the Americans, were shown some agricultural implements. They put aside their weapons and came grinning to investigate these strange tools. They took turns plowing, harrowing, and cultivating. Then they inquired the prices of the implements, and one chief wanted to buy a cultivator and half a harrow.

Corn had been regarded as food only fit for pigs.

and was rejected by all Filipinos who had money enough to buy anything else to eat, but here again the spirit of emulation was put into effect and brought results. Corn-growing contests developed a keen rivalry, medals were given to the winners and in 1915 a Filipino boy, Melchor Roldan, was awarded chief honors at the Panama-Pacific Exposition as champion corn-grower of the Philippines. Thousands of boys are now hustling to capture similar laurels. Philippine corn exhibits in one year were attended by half a million people. How to make appetizing dishes by the use of corn has been taught, and this food is now one of the most popular in the islands.

We think that the state of Ohio is doing well when two hundred boys and girls enroll in the year's corn-growing contest, until we learn of one small district of the Philippines, called Agusan, with its one thousand, one hundred and thirty-four enrolments. In proportion to the population Ohio would need to have two hundred thousand entries in order to have the same pro rata as that of Agusan.

Formerly little tree-planting was done. Such planting as was carried on was hedged about by superstition. It was believed, for example, that when planting a banana tree a person must never look up and that if he does it will be a very long time before the tree bears fruit. When planting coconut-trees men would carry children on their backs, believing that this would cause the trees to bear fruit more abundantly. Gradually the people were taught that seed collection, soil,

and cultivation were the important factors. Nurseries in connection with the public schools now supply thousands of trees annually, and Arbor Day is becoming observed by tree-planting throughout the islands.

Teaching the Use of Hands

The schools of the Philippines, besides the training which they furnish in agriculture, teach everything from brick-making to embroidery. The blacksmith acquires his art in a public trade school. The needle worker learns to take the hip bag of the Ifugao wild man and readapt it as a vanity bag for milady of America. According to a statement of Mr. Sturtevant of the Philippine Bureau of Education, there are given, throughout the Philippine Islands, fifty distinct industrial courses. Of these he says thirteen are especially for girls and include household industries (cooking and plain sewing) and household arts (fancy needlework and lace making); eighteen are especially for boys and include wood-working, pottery, bamboo-rattan furniture making, carving on wood and bamboo, many forms of basketry and gardening; while nineteen are courses which either girls or boys study as conditions determine, among which are hat-making, loom-weaving, hand-weaving, slipper-making, and the platting of buri and pandan.

Even the jails have been transformed into schools. The San Ramon prison farm consists of a grove of seven thousand five hundred coconut-trees. The prisoners here are not losing their minds in darkened cells,

but are becoming familiar with a business which will enable them after they leave to be respectable and self-supporting. So elaborate and thorough is the industrial training of the Bilibid prison in Manila that Dean Worcester has been accustomed to call it his "university."

Describing the change which the United States has accomplished in the Philippines, Robert E. Speer says: "If any American thinks meanly of his country or doubts the value of the work it has done in the Philippines, I wish that he could have made this visit to Cebu with us. Whatever view men may take of the wisdom of our having come here in the first place or of the course which we should pursue in the future, they could not visit the Island of Cebu without an overwhelming realization of the beneficence of the work which our nation has done here. Apart from all the material benefit which has been brought to the people, the evidence of which is written all over the island in improved homes, better dress, increased prosperity, there are the unmistakable signs everywhere of a free and intelligent spirit and enterprise, a confidence, a cheerful and friendly equality of manhood, such as make the whole atmosphere of life here as different from the atmosphere which we found in Siam as day from night."

These Activities Must Have a Christian Foundation

If the American government has done so much for the improvement of the conditions of the Fili-

pinos, is there any task left for the American missionary? There is, and it is a great task. The people of the Philippines, as suggested before, lack solidity of character. Industrial development alone will not give it to them, although it will help to do so. Whatever poetry they have in their souls, and they have much, they lack the poetry of truly spiritual ideals. Again, mere industry cannot provide the long forward look into eternity, which gives propulsion and purpose to life.

The farmer is apt to be a better farmer for being a Christian, for his character is firmer and his ideals are higher. The same is true of the blacksmith, the machinist, the carpenter, the engineer, the manager, and the great employer of labor. The Filipinos learn arts and trades readily. Whether they will develop these industries in a large and powerful way and use them for the benefit and blessing of the entire world, depends on something more than nimble fingers and quick brains. It depends upon character and faith. Industry may be either a curse or a benediction. It is the business of the missionary to see to it that the foundation-stone of Christian character is placed under all the activities of the Philippines, so that the increasingly powerful influence which radiates from these islands throughout the surrounding Orient may be vitally Christian.

The flag of Uncle Sam and the banner of the missionary went into the Philippines together. Before the firing had ceased in the city of Manila American

missionaries had arrived and had begun their work.

The beginnings were small indeed. One congregation had its inception with a man who got a piece of steel in his eye. He came to the medical missionary, who succeeded in removing from the man's eye not only the mote of steel, but also a beam of ignorance and prejudice, and this first convert in that section was instrumental in gathering other believers and building up what is now a large work.

In another case the missionary induced a man and his wife to live in the open air under a mango tree, so that the woman might be cured of incipient tuberculosis. The couple were working Christians and the tree became a church for all who passed that way. In still another center the work sprang from the influence of a few copies of the New Testament left behind by peddlers.

Baptism by Force in the Old Days

Although there were scarcely any Protestant Christians in the islands to begin with, the number at present exceeds sixty-nine thousand. Formerly, during the Spanish régime, a large proportion of the people had been nominally Christians under the Roman Catholic Church. This, however, had meant very little to them. Many of them had been baptized forcibly; that is the priest had gone with soldiers among the people and compelled them to be baptized, after which compulsory ceremony they were called Christians and members of the Church.

A Jesuit priest insisted that a certain old chief of a wild tribe must be baptized. The chief said: "I do not want to be baptized. I don't know anything about this. I don't understand it. I'd rather not be baptized. Please don't bother us." But the priest said that the Spanish government would demand it and he was only sorry that he had not brought enough soldiers to enforce the ceremony there and then. The chief finally said: "You are a man, and I am a man. We will fight and if you lick me I will be baptized; and if I lick you neither I nor my people will be baptized." This angered the priest to the point of indiscretion. He agreed to the test and in the presence of the tribe the two men wrestled, and the priest was laid out. "Now," said the chief, "I am just as good as you are! Perhaps I am better!"

Later into this same district came the Protestant missionaries. They did not bring soldiers with them, nor did they go around showing their muscle. Instead they brought Bibles, geographies, arithmetics, and medicine, and they went about healing and teaching. Throughout this Davao district of the island of Mindanao went these white friends of the wild men teaching them how to take care of their own health; how to grow better corn, rice, and eggplant; how to build better fences of wire; how to do sewing, weaving, and basketry; how to use the first soap that had ever been seen in that country, and how to look up through the mists of paganism to the face of a Father who had never before been known to them.

Making Steam Engines and Mills Christian Agencies

Missions maintain not a few industrial schools in places not reached by government education. But there is a difference between these schools and those of the government. In the mission schools the effort is made to combine industrial ability with Christian integrity. At the famous Silliman Institute, for example, you may find not only lathes, steam-engines, and sawmills, you may also find a strong Sunday-school, a Christian Endeavor Society, a mid-week prayer-meeting, and regular preaching services in two dialects. No lad is barred from the advantages of this school for lack of funds. Every boy is given the opportunity to work his way through.

At the Jaro Industrial School, industrial training and Christian training are combined with training in self-government. The student body is organized into a self-governing republic, with its own constitution and by-laws, of which the following is the preamble: "We, the students of the Jaro Industrial School, in order to maintain peace and order, to uphold justice, to acquire moral courage, to establish the liberty of intelligently choosing one's own religion, and in order to train ourselves in self-government, do hereby adopt this constitution and these by-laws." Mission schools in the Island of Mindanao and at Baguio, Sagada, and elsewhere are doing aggressive work in character building.

A striking example of the changed conditions brought about by education is found at Sagada where

the Rev. John A. Staunton, of the Protestant Episcopal Church, has been carrying on an industrial work. This is in the Igorot region and when the school opened the people were absolutely untouched by civilization. Now the boys have learned stone-cutting so well that they are building a magnificent stone church. They do excellent printing; run a machine shop and electric light plant, and conduct an "Igorot Exchange." In reporting this work to Bishop Brent, Mr. Staunton writes:

"I ought to say something about the development of our Igorot Exchange, which has more than doubled its business during the past year. I had not been working long in Sagada when I saw clearly that, for the benefit of the people among whom we were working and the whole district, we would have to open a general store where people could obtain the necessities at a reasonable price. In the past, mountain people had no incentive to steady employment because with the money they earned a fair equivalent could not be had from any merchant within reach; and, to take long journeys to the towns of the lowlands for the purpose of purchasing supplies meant that the pack-horse would eat more fodder on the up trip than he could carry on his back. The Igorot Exchange which was the outcome of my attempt to solve the problem of steady labor and a living wage, has largely accomplished its purpose. To a considerable extent it acts as a balance-wheel in the district regulating the prices of staple commodities and establishing a true and

just relation between the earnings of the people and their necessities.

“In our Igorot Exchange we buy everything that the native will produce, and we handle everything that he wants to buy. The fact that we do a considerable business enables us to get wholesale and dealers’ prices for goods which we purchase in Manila and outside, with a great saving to the Mission; and the benefit of these lower prices is transmitted directly to the people through their opportunity to purchase at the Exchange. Not only is money kept constantly in circulation, but the profit which we make in our Exchange and associated industries goes back again into the development of our institutions, and again works for the benefit of the Igorot.”

Christian Homes for Government Students

Ten thousand students attend the government schools in Manila alone. The missionary idea was conceived of erecting Christian dormitories in which these students might live and be brought under Christian influence during their years of schooling. A dormitory was opened and was immediately filled. It originally accommodated only eighty students and it was obliged to turn away more than six hundred applicants in one year. As a result of the enlargement of such work, a strong church has been developed with a Sunday-school of nearly one thousand. Dormitories established in connection with the high schools in smaller towns have also been successful.

According to a report of this activity: "The opportunity for personal work upon life at the formative stage is at its best, where the missionary has living with him the young people with whom he is to work. The personal contact daily, the opportunity to help with school studies, the sympathizing with troubles, and the guiding through problems peculiar to young life, all afford the most telling hold and this is the key to the value of the dormitory work. For example, in the Vigan dormitory for young men, seventy-five per cent. of those coming into the dormitory have been converted."

Thus through multiform activities, through schools, dormitories, hospitals, churches, and Sunday-schools, the quality of Philippine manhood and womanhood is being strengthened so that it may properly bear the pressure of the strenuous modern conditions which the twentieth century is bringing to these islands.

The kind of Christian character which is being developed appears in the story of two graduates of Silliman Institute who were sent out to establish Christian schools among the wild tribes of Mindanao. Although they were young men of breeding they did not shrink from the prospect of living far away from civilization among the wild men, eating their food, risking their diseases, and facing dangers. One of the boys was taken with typhoid. He was brought down from the hills and carried in a launch to the nearest hospital. The long journey was too much for him and he died. He gave up his life for the pupils in his school. The

other boy became seriously ill with malaria. He was brought to a hospital and in time recovered. Then he was asked what he proposed to do in the light of his own bitter experience and that of his comrade. There was no hesitation in his mind as to what he purposed doing, and he is back to-day among the hills continuing his work.

Philippine Greatness Must Be Built on Christianity

Other young men from Silliman Institute have since been brought into the work of this district on the same basis of fearlessness and sacrifice. Speaking of the results obtained by Christian training, Dr. Sibley says:

“The character and quality of the boys from Silliman cannot be too highly praised. They are some of the most daring self-sacrificing chaps I have ever known. It was no easy thing for these boys to come down from a home in the north. They came not for wages but because they learned at Silliman of the gospel and their desire was to make others Christian. They came understanding what they were coming for, with the willingness to make the sacrifice. I cannot say enough concerning the character of such young men.”

That is the sort of character that will make the Philippines great.

An Ilocana, who was converted in Manila, gave up a good position to go back to the interior and preach among his own people. Several of his children died,

his wife passed away, he himself was often in danger, and yet he stuck to his post.

Hundreds of stories like the foregoing might be told. They all bespeak the mettle of soul which Christianity gives, and which is a necessary part of the genuine greatness of any nation.

"Your government has done wonders," says the Hon. Manuel Quezon, "in public works, public health, a reformed judiciary, and great political changes, but the work of the evangelical missionaries is just as important and exceedingly necessary. *We must have the renewed heart life and deep moral basis if our changed conditions are to stand.*"

And the final note is this. Not only is the "renewed heart life" and the "deep moral basis" necessary for the sake of the Philippines. It is necessary for the sake of the entire East. Bishop William F. Oldham puts it strongly, but probably none too strongly, when he says: "The crux of our missionary activities in Asia is in the Philippine Islands. If we fail to Christianize the Filipinos, we shall fail to Christianize Asia. If we succeed in Christianizing the Filipinos, we shall succeed in all Asia."



Aguinaldo, one-time insurrecto, stands peaceably beside the American Director of Education, with a background of prize corn grown by Aguinaldo's son under guidance of American teachers.

V

PREACHERS OF THE PLOW

V.

PREACHERS OF THE PLOW

Up farmers, and away to India! If you have any scientific knowledge of agriculture, you are needed there. If you wish to do genuine Christian missionary work, this is your opportunity. For the truth is that the progress of Christianity in India will depend to a very large extent in the future upon the progress of agriculture.

Time was when the Christian movement in India centered in the cities; but since less than three per cent. of the people live in cities having one hundred thousand or more inhabitants, the missionaries long ago found that their greatest task was among a rural population. During recent years the so-called mass movement has brought to Christianity many thousands of these village folk. For five years they have been received at the rate of ten thousand a month, and yet there are at the present moment on the waiting list of one American mission more than one hundred and fifty thousand applicants who cannot be admitted to the church because it is impossible to secure enough preachers and teachers to educate them, and the people themselves are much too poor to pay for this education.

Millions in India Are Always Hungry

This mass movement is taking place for the most part among the outcastes, those fifty million "untouchables" who form a sixth of the total population and who are lower in the social scale than even the despised lowest caste. Theirs is the keenest suffering from the general poverty existing among the agricultural population, for their lot is to perform the most menial tasks of the villages. When there is undernourishment and even starvation to such a great extent among the cultivators and tenant farmers, desolate indeed is the state of those who are only scavengers. Sir C. A. Elliot says that half the agricultural population of India "never know from year's end to year's end what it is to have their hunger fully satisfied." Another authority states that there are forty million continually hungry people in British India. The energetic measures of an enlightened government have apparently been successful in making impossible another general famine such as India has suffered in the past, but even now local famine conditions are of frequent occurrence in certain areas. If you were to add up the value of all the possessions of an ordinary farmer, including his household furniture, his implements, and tools, and the clothes on his back,—all the movable goods that he has in the world,—the total amount would not come to more than five dollars. Add to this the fact that seventy-two per cent. of the population of India are dependent upon agriculture, and you get

some conception of the widespread poverty of India's masses.

Now what do these grim facts of poverty have to do with Christianity? Just this; a self-supporting and self-respecting Christian church is impossible among people who never know what it is to have their hunger satisfied, and who, on their total cash income of less than ten dollars a year, are naturally unable to support a church or religious or educational organization of any kind. Such organizations cannot perpetually be maintained by money from across the seas; in fact, in most cases the money cannot even be obtained to establish them. If Christianity is to take root in India and become indigenous, it must be maintained from within the country.

How is the Indian farmer to secure the means with which to maintain a church, a school, a hospital, and whatever else he needs in order to live a rounded, intelligent Christian life? There is only one way he can do it, and that is by increasing his own earning power. This means to increase his agricultural production.

There is no abiding reason why the farmer of India should be destitute. The growing season is nearly twelve months long. There is scarcely a time of year when some crop may not be raised. The true reason for India's agricultural inferiority is the use of archaic agricultural methods.

Out of these matters arises the vital need for farmer missionaries who will go to India in the name

of Christianity and Christian progress and, by showing the farmer how to make the best use of his natural skill and industry, and of the country's natural resources will put him on an independent footing so that it may be made possible for him to live a clean, intelligent, and worthy Christian life.

Considering this undertaking as missionary endeavor, we must concede that the British government of India is doing some very efficient missionary work. The Agricultural Department is promoting new methods; the Research Institute is studying India's peculiar farming problems; experimental farms are maintained in British India and in many native states.

Where Farmers Pay Seventy-five Per Cent. Interest

An important feature of the constructive work of the government, the missionaries, and the Young Men's Christian Association is the establishment and growth of cooperative societies as a means of relieving the almost perpetual indebtedness of the average Indian farmer. Untrained in habits of thrift and lacking capital for the most fundamental agricultural undertakings, this farmer was formerly obliged to borrow of the money-lenders, who charged usurious rates of interest, often as high as fifty or seventy-five per cent., and refused to accept part payments on the principal. Rev. R. I. Faucett, of the Moradabad District, tells of one man who had paid one hundred and sixty rupees interest on a loan of eighteen rupees and still owed the eighteen rupees!

About all the inheritance many an Indian native receives is the privilege of paying an exorbitant rate of interest on his father's debts with never a hope of clearing off the principal.

Cooperative credit societies, modeled on similar institutions in other countries, were the cure decided upon by officials and economists in India. The organization of these cooperative societies is simple. Ten or more persons are banded together "for the encouragement of thrift and self-help among the members." The pooling of capital, even though individual contributions may be small, makes the society effective; careful scrutiny of the expenditures of members and close supervision insures safe credit. The farmer is thus borrowing of an organization of which he is a member, and that which benefits all is to his interest also. It is to his advantage to keep the interest on loans at a low rate. To do this he must discharge his obligation to the society faithfully, pay his interest promptly, and repay the principal by regular instalments. If he wishes to raise a loan he will have to prove that the money which he asks for will be well laid out in the employment for which he intends it. "Under the teaching of cooperative banks people become by degrees, without any effort on their own part, men of business habits with a business mind, and power of calculation, forethought, and businesslike reflection." Thus these societies give to the poor man an opportunity to become free from indebtedness, to be a unit in a self-governing body, and to adopt pro-

gressive methods that will transform India's agricultural conditions. It is little wonder that the Young Men's Christian Association considers that "the co-operative credit society is the foundation-stone of the Association's rural work."

Irrigation Makes Another Desert Bloom

The government has also made productive immense tracts of land by the creation of a system of canals. In northwestern India millions of acres of waste land have been converted into a world granary in this way. "To take one of the most striking instances," quoting from the Census Report of India, 1911, "as recently as 1891 the Lyallpur district in the Punjab was a barren desert with only seven inhabitants to the square mile, but when the canals were opened in the following year, cultivators flocked in at once from far and near and by 1901 the district already had a population of one hundred and eighty-seven to the square mile. This has now risen to two hundred and seventy-two and it is still growing rapidly."

But the government of India, although it has undertaken these and other measures, cannot possibly handle the whole task of regenerating the agricultural population of the country. If the task is ever to be accomplished it will only be by the thorough cooperation of private agencies and organizations of every sort.

It is peculiarly fitting that in a work upon which Christianity depends for its fullest progress, Christian

forces should be strong and active. Let us observe here a few of the pieces of work that Christian agencies are carrying on at present.

Missionaries in Feathers

The growing of chickens may seem a peculiar way to begin the propagation of Christian truth. And yet that is a method which is being followed in and around Etah, a mass movement area occupied by the American Presbyterians. Here Mr. Arthur H. Slater, missionary and poultry expert, has undertaken to promote the chicken industry as a means of self-support among the thousands of Christians who inhabit the fifty villages in the vicinity of Etah. He states his own broad problem as follows:

“We must face the question how to enfranchise and yet not pauperize the ‘submerged tenth’ now flowing in such tremendous numbers into Christianity. We must study how to enable them to increase their wage-earning capacity, how to help them build up a self-supporting and self-propagating church, in many cases how to provide for themselves the bare necessities of life, that they may not be forced to eat the remains of idolatrous feasts. We are facing in India one of the world’s greatest sociological problems. Avoid it we cannot. Reject it we dare not.”

The indigenous varieties of fowls are of very poor quality and the eggs they produce are small and inferior. On the other hand, imported breeds from the United States, Europe, Australia, and China cannot

always be trusted to stand the peculiar climate of India. The solution arrived at by Mr. Slater was to cross the imported, thoroughbred variety with indigenous varieties and thus gradually to grade up the indigenous stock with fresh supplies of full-blooded cocks. A Bible class in Coatesville, Pennsylvania, periodically sends him a crate of "missionaries in feathers" to renew his stock of thoroughbreds. Eggs produced by the better fowls are distributed in the villages for hatching, and thus flocks of excellent chickens are beginning to be seen in all the villages round about Etah. The enterprise has the promise of bringing thousands of people to independence through the sale of eggs bigger and finer than the district has ever seen before. The eggs are brought to Etah and from there shipped to Delhi, Agra, Lucknow, and Cawnpore, where they are sold for a good price. The demand in the cities for these superlative eggs is tremendous and the Etah district cannot begin to supply all that are needed.

Fowls are now exhibited at Slater's annual poultry show weighing more than twice as much as the scrawny, rubberoid Eastern type. In two years' time the price received by the people for their eggs has doubled. That is not surprising, for the size of the eggs themselves has doubled. For the very best eggs the villagers are receiving eight times the amount they used to receive for the eggs of the now out-of-date Indian hen. The people are beginning to pass on eggs and stock to their neighbors. One Christian, who cap-

tured a valuable silver cup at the poultry show, has shown his appreciation by opening up work in four different villages by giving the people eggs. An itinerating elder, cooperating with Mr. Slater, has commenced a flourishing work in twenty-one new villages by the simple expedient of distributing properly-bred eggs for hatching. A nominal charge of eight cents a dozen is now made for all eggs supplied, as Mr. Slater has found that the people seem to value them more when they pay for them.

The spiritual result of this application of Western science to the production of eggs is that Christianity is being supported and propagated in this district as never before, and villages are beginning to maintain native workers and institutions in a way that they would never have dreamed possible in the old days before the poultry expert set up his sanctified business in Etah.

Crime Both a Business and a Religion

Now look, if you will, at the work the agricultural missionaries are doing for the criminal tribes. There are in India certain tribes of professional criminals who might almost be said to constitute a separate caste. Just as there is a caste of potters and a caste of weavers, so also there is a caste of criminals. Their ancestors were criminals before them, and they regard crime not only as a legitimate business, but even as a part of their religion. Before they attempt a crime they will meet in prayer, invoking the blessing of the

gods upon their enterprise. In organizing their depredations they divide the territory among them, planning a definite route for each gang. The route may be four hundred or five hundred miles in length, and each year it will be changed a little. A gang will be made up of ten or twenty men with their wives and children. The crimes are carefully planned. Groups from the gangs mingle with the villagers, pretending to sell baskets, brushes, or trinkets, the women often posing as fortune-tellers. They take note of the places best worth attacking. After the indispensable religious ceremony, they strip, oil their bodies so that they cannot be easily caught, and then make their raid. They leave a whipped and maimed village, although they do not kill except when absolutely necessary to their purpose. One division of the caste is known as Cuttaree Banoru, "scissors men," because they are wont to cut off ears with scissors in order to get the jewels. After the robbery is completed, the booty is divided according to a fixed system, and the gang moves to the next center of operations. At least once a year the gangs reassemble in their native community and campaign plans are made for the following year.

Naturally such organized and systematized plunder has been a source of increasing vexation to the government. The iron hand has been tried, but the criminals are too oily and slip out from under it. The greater the severity of the government, the more zest and enthusiasm the criminal tribes seem to throw into their business. At last the government decided that

stern measures were having no effect and they turned in desperation to the missionaries. Force had failed. Would the gospel of love and regeneration obtain any better results?

Crime Reduced Seventy-five Per Cent. by Missionaries

Instead of sending malefactors from these tribes to jail, as has been the custom, they were turned over to the missionaries. They were organized into settlements, and dependence was placed upon agriculture to take the place of thieving as a means of existence. Seven thousand members of the criminal tribes have been handed over to the Salvation Army to train into useful citizens, and more will be provided as fast as the Army can take care of them. Their chief now is not a proud and powerful government official but a humble, bare-footed, turban-headed white man, by name Commissioner Booth Tucker.

There is another large settlement of criminals at Kavali which is under Baptist direction, and two at Sholapur and Barsi in charge of the Congregationalists.

Results? The Kavali mission may be taken as typical of the others. At the end of the first year of work crime had decreased seventy-five per cent. in the regions round about the Kavali settlement. In a certain large town where there were formerly one hundred and fifty habitual robbers, crime had practically disappeared. "The deputy magistrate of the district at the end of the first year found his cases for trial

reduced from two hundred to sixty. No one case was reported of a criminal leaving the mission to return to the old life."

The members of the settlement police themselves. Twelve special constables have been chosen from among the former criminals, and what little corrective force they have to apply is applied efficiently. All the children of school age are studying in the schools and working on the farms, learning to become independent and intelligent citizens of a new India.

It's a Good Sign When Women Comb Their Hair

The managers report that another sign of improvement is that "more women comb their hair and nearly all change their clothes once a week. Three years ago perhaps a dozen out of two hundred combed their hair. The other day at a church service more than eighty out of a hundred and forty-five had their hair combed." Cottage prayer-meetings are being held in the huts and Christian community houses, and scores of men, women, and children are confessing Christ and being baptized. Christian love and Christian agriculture are lifting these people to a plane of existence deemed unattainable for them in the past when jailing and suppression had failed to preserve order among them.

Here and there missionaries are increasingly taking up scientific agriculture as a means of delivering their people out of the slavery of poverty. At Sangli, in Western India, the Presbyterians started an agricul-

tural department in connection with their Sangli Industrial School. Since cultivating the soil is regarded as a menial task in India, at first they could persuade only two boys to take up field work in the new department. One of the boys had failed in every other trade he had attempted, and the other boy was not in good health and was willing to try the new work for the sake of being out of doors. These boys, although they entered unwillingly, soon became enthusiastic students; many other lads joined the department, and now the work is firmly established and prospering.

Tilling the Hearts of Men with Western Plows

The manufacture of plows may not appear to the casual-minded critic to be missionary work, but the Rev. W. H. Hollister, of Kolar, India, believes that it is. "Once used, always used," is true of Hollister's plow. When a man buys one he comes again, and his neighbors soon come to buy. One customer, after trying his new plow, was so enthusiastic that he came back and bought thirteen.

In these schools and on these farms where Indian cultivators are learning how to make two blades of grass grow where one grew before, the talk is of more than tools, seeds, and harvests. Thus the missionary's plows are not merely tilling the soil, they are tilling the hearts of men. They are stirring up the rich soil of Christian character which has so long been hard-baked and sterile under the burning sun of poverty.

In connection with the remarkable Basel Industrial Mission in South India, expert training is given in the growing of rice, vegetables, and fruit. The government took a Congregational missionary, J. B. Knight, a graduate of Massachusetts Agricultural College, and made him Professor of Agriculture in a new agricultural college at Poona. Here his astounding crops, scientifically produced, have been visited by thousands of native farmers at government expense, and the story of their yield is a tale of wonder that is passed along from hamlet to hamlet over the arid plains of western India.

There are many other agricultural missionary enterprises of a similar character that might be mentioned. Among them all, however, perhaps the most outstanding piece of work is that of Mr. Sam Higginbottom at Allahabad, in the United Provinces. Mr. Higginbottom spent his boyhood on his father's dairy farm in Wales. Then he came to America and studied at Mount Hermon, Amherst, and Princeton. He intended to go to a theological seminary but he was induced to go at once to India to join the staff of what was then Allahabad Christian College, now called Ewing Christian College in honor of its first principal, Dr. Arthur H. Ewing.

A Leper Asylum as an Avocation

Mr. Higginbottom's first task there was repugnant to him in the extreme. He was assigned the care of the Leper Asylum. When Dr. Ewing first took him



Sam Higginbottom teaches India to save forty-two and a half miles in plowing a single acre. His work affects more than 200,000,000 farmers.

out to the mud huts in which lay poor wretches in all stages of the loathsome disease, Mr. Higginbottom decided that he could not and would not have anything to do with this work.

As they were going away, he noticed lying on the ground under a tree a leper within a few days of death. His feet and hands had partly rotted away. He had not even the strength to drive away the flies that covered his festering body. Of this incident Higginbottom says:

"As I looked, I suddenly remembered that this man was my brother—that inside that repulsive body was a spirit that would live forever, a soul for whom my Master died. Who was I that I should refuse him help? When I went back I agreed to accept the oversight of the Leper Asylum."

The result is that a splendid institution for lepers, modernly equipped, has now risen on the banks of the Jumna. Mr. Higginbottom has directed and promoted it, but his chief work is no longer the Leper Asylum.

"This Leper Asylum is my avocation," he says. "I suppose if I were at home I should play golf. In India I play leper. When I am tired and need recreation, I go out to the Leper Asylum. It is the happiest place I know. I always come back rested."

Also soon after his arrival he was pressed into the teaching of economics. He knew very little about economics. But he at once showed his practical bent in bringing his subject down from the realm of textbooks to the realm of every-day affairs. He took his

students out to railway workshops, brick-kilns, jails, and villages, in order to illustrate the statements of the text-books with practical economic illustrations.

It did not take many journeys into practical economics to convince him that the great economic problem of India is inferior agricultural production. He saw further than that; he realized that the problem was not only economic but social, moral, and spiritual.

Introducing Twentieth Century Agriculture

Convinced of the need, he went to men prominent in education and in the government and said:

"If government and missions are justified in any kind of education, are they not justified in that kind of education which most directly concerns the great majority of the people of India? Should we not teach these people how to get more out of their soil?"

He was met everywhere by the objection that although theoretically it was a very good thing to do, practically it was too difficult and expensive a task. But "cold water" only seemed to invigorate Higginbottom. He persuaded his mission to send him home to study agriculture, recruit assistants, and raise funds to start agricultural work. He took his degree in agriculture at Ohio State University, specializing in animal husbandry. Then he obtained two men and twenty-five thousand dollars and went back to India where, in the meantime, Dr. Ewing had secured, with the help of the government, a farm of two hundred and seventy-five acres.

When work on the farm had been started, some Christian boys came to him and said:

"Sir, we would like to study agriculture."

"I am very sorry," replied Higginbottom, "but we have no dormitories, no laboratories, and we cannot take you in."

"But you have this good Ameican machinery," they said, "and we have heard that in America boys work their way through college. Could we not do that here?"

There was no way of driving out boys of that spirit. So they were allowed to establish themselves under one tree as a kitchen and dining-room, and to use the ground under another as a bedroom. In the rainy weather they slept in the cattle shed with the oxen.

The Prince and the Pauper Plow Side by Side

That was the beginning. Now a great agricultural school has been developed. It is remarkable that in this school and on the farm in connection with it boys of the lowest caste and boys of the highest caste work side by side. To see a poor Christian convert from the sweeper outcastes plowing in a field along with a wealthy Brahman of the highest rank, is a sight that makes old-time India rub its eyes in amazement. From all parts of India young men go there to train. Many missionary organizations, both British and American, who realize the value of developing Christian agricultural experts to lead the people of India out of bondage, have sent students.

A rich Hindu of the highest caste, himself a land-owner holding ten thousand acres, became a student and bore the burdens and the heat with the best of them on the mission farm. Seven or eight motorcycles may be seen any day standing before the college waiting for their owners to be freed from their classes and go for their daily spin.

A very wealthy Indian prince came as a student, bringing with him a retinue of servants and his private secretary to take notes in class. He was somewhat dismayed when he was set at the task of carrying fodder to the silage cutter. Presently, however, he got into the spirit of the work, began to write his own notes in the classrooms, and no labor on the farm was too hard for him.

Young sirdars or nobles come from other native states, take the course in agriculture, and then go back to their states to introduce the new methods. Besides a knowledge of agriculture, many of them carry back something else, something obtained in Higginbottom's Bible class. In most cases the first Bible they have ever seen is the one put into their hands by this farmer missionary. It is difficult for students to escape from Mr. Higginbottom without being strongly influenced in a spiritual way, and many of these lead Christian lives after they leave Jumna Farm.

Mr. Higginbottom is constantly being forced to refuse students for lack of accommodation. And yet the government schools have not been able to popularize this kind of education. The reason for Hig-

ginbottom's success lies not only in the Christian personality of the man but in the sheer wonder of the scientific results he is getting.

He has introduced American weeders which save the toil of nineteen men. His modern mowing-machine will cut several tons of grass in the time that it would take a native using the old method to cut enough grass to feed one horse. He has demonstrated that threshing by machinery costs only six cents a hundred pounds, while threshing in the old way by the use of oxen costs fifty cents a hundred pounds. Laborers are cheap in India. They can be had for eight cents a day. And yet Mr. Higginbottom has proved beyond a doubt the almost incredible fact that by the use of machinery it is possible to harvest at one third the cost of Indian labor. The English plow which he uses goes eight inches deep and tills the soil at one twentieth the cost of digging it with the native implements. He has taught the farmer how to save forty-two and a half miles in plowing a single acre.

An amusing incident shows the influence which Higginbottom's work has upon the native cultivators in the vicinity. One day he was demonstrating to his students how deep plowing will enable the soil to hold moisture for a long time.

"We'll investigate the depth of moisture in our field," he said, "then we'll try it in the field of that native farmer."

The students made their test and found a consider-

able depth of moisture in the mission field. Then they went to the field of the native farmer and made similar tests. What was the astonishment of the students and of Mr. Higginbottom himself when they found that the depth of moisture there was just as great as in the mission field!

"How did you bring this about?" Higginbottom said to the native cultivator.

The farmer dropped down on his knees.

"Oh, forgive me, master! I watched everything you did, and on Sunday, when you were not using your plows, I borrowed them from your foreman, and everything you have done, I did too!"

Which illustrates the fact that the Indian farmer is not so unteachable after all! He lives in the conditions of the Middle Ages, not because of preference but because he simply does not know the way out. He has waited long for leaders. American Christendom may well be grateful that it is able to provide some of the guides who will lead India up out of the rut of tradition and place her on the highway of the twentieth century.

Mission Crops Fifteen Feet Higher Than Natives'

The land in Mr. Higginbottom's farm when he started to work on it was of the poorest possible quality, the sort of land that generally falls to the lot of a peasant farmer.

If the college had bought fine land, people would have said: "Anybody could succeed with land like

that, but that is only for rajahs! What can we do?" Higginbottom has shown them what they can do with even the poorest soil. Five years ago this land was not worth twenty-five cents an acre. Now it is worth in the neighborhood of ten dollars an acre, that is, forty times as much.

The farmers in the neighborhood say:

"Your God helps you and your soil becomes more fertile than ours—just as your wife's medicines are stronger than ours, strong enough to defeat the evil spirits."

But whatever they believe the reason to be, they are eager to have the same methods applied to their own soil. While they obtain six or eight bushels of wheat an acre, they see the Mission Farm raising from twenty-five to thirty bushels of wheat an acre. Their crops of millet grow only two or three feet high. Around Higginbottom Sahib's bungalow they see it towering seventeen feet high. Small wonder that they want his man to come and cultivate their fields and are willing to pay four dollars an acre for this service. Four dollars is a princely sum in India.

The Modern Joseph

The ox is the Indian farmer's only machine, engine, and source of power. So complete is the economic dependence of three quarters of the people of India upon the ox that it has been surrounded by all the safeguards of religion and constituted a sacred animal. When famine comes, the oxen are the first to

suffer. They die by tens of thousands and by their death leave tens of thousands of farmers helpless.

Mr. Higginbottom thought directly into this problem and the result is the silo which is not a structure above the ground but a pit in the ground. The Indian could not build a Western silo, but any farmer in thirsty India knows how to build a well. Fodder and grass and even roadside weeds are packed away in these silos, and when the time of drought comes there is food in plenty for the cattle. This system is spreading rapidly throughout the country, and will do much to allay the severity of famine. Mr. Higginbottom is doing for India what Joseph did in the years of plenty in Egypt to prepare for the lean years.

Also Mr. Higginbottom's influence is going out in the teaching of animal husbandry, dairying, and horticulture. For example, his breed of sheep grows four times as much wool and it sells for twice as much as the wool of the native sheep. His graduates go throughout India as farmers or farm-demonstrators for mission and government service or as managers on large estates. Two graduates recently went out on the exceptional salary, for that country, of thirty-three dollars a month each.

The case of Harry Dutt represents what the training of the school can do. While finishing his course he took over a small tract of five acres of land. In one year his profit from that tract amounted to one hundred and sixty-one dollars. That is at least three times what the average Indian cultivator could hope to



Archaic agriculture means famine; modern cultivators and plows mean self-support. Increased agricultural production means the end of India's loss by famine of 19,000,000 people in ten years.

earn, even though skilled in the old methods. It should be added that other work prevented Harry Dutt from devoting more than three days a week to his farm. He believes that he could have made double the amount if he could have worked six days a week.

Cooperating with Princes

Princes come from afar to visit Jumna Farm. The Maharaja of the native Indian State of Gwalior has placed Mr. Higginbottom in charge of the agricultural development of his province, and has set aside an annual budget of twenty-five thousand dollars for this purpose.

Mr. Higginbottom and his associate, Mr. Don W. Griffin, now spend several months out of each year in that state. One of the most interesting projects now under way in Gwalior is the establishment of a model village in each of the districts of the state, and the placing of a student from the Mission Farm in charge of each of these villages. If Mr. Higginbottom will give up his connection with Ewing Christian College and devote his full time to the agricultural affairs of the State of Gwalior, the Maharaja will turn over to him a fund of more than six million dollars with which to carry on this work. Mr. Higginbottom, however, does not believe that agriculture alone can save India. He wants to work where he can teach about Christ and about Christian social ideals at the same time that he is teaching the people how to improve their economic condition.

The Maharaja of Bikaner sent Mr. Higginbottom through his state in a private train that would start and stop just where and when Sam Higginbottom wanted it to. The Welsh farmer was made comfortable in an elegantly-furnished special saloon-car with kitchen attached. On the train was a horse box, so that the company could leave the train at any time and drive across country. Also, right behind the saloon was a truck containing a large French motor-car for use on the splendid motor roads which the Maharaja had made across the desert. At the end of the day's run, Mr. Higginbottom and his attendants would find beautiful tents furnished to the last detail ready for them as they stepped off the train. The farmer missionary toured the state in Oriental elegance. Ordinarily, however, when such courtesies are not forced upon him, he prefers to travel in the simplest way possible, and any extra travel allowances, or salary, or fees of any kind go into the treasury of Ewing Christian College.

The Maharaja of Bikaner is willing to pay two thousand five hundred dollars a year to a missionary trained in agriculture who will come and take up the supervising of the agricultural work in the state. The Maharaja of Jodhpur has forty thousand square miles to cultivate, and wants two missionary agricultural experts. And so it goes. Besides his work at the college, and his services to the Maharajas of Gwalior, Bikaner, and Jodhpur, Mr. Higginbottom is also agricultural adviser to the State of Rutlam,

Kotah, Jalawar, Dhar, Jaora, and Benares, a total area larger than that of the States of New York and Pennsylvania combined.

Hindu Leaders Seek Farmer-Missionary's Aid

The Hindu University was opened at Benares. It was designed to be a stronghold for Hinduism, and to be a place in which the traditional faith of India might be fostered. And yet Mr. Higginbottom's work was recognized as meaning so much to India that he was not only invited to give a lecture at the opening of the university, but was requested to make recommendations for the development of an agricultural department, and to suggest American teachers who might be put in charge.

Distinguished visitors step out of their carriages or automobiles before the bungalow at Jumna Farm. Mr. Higginbottom had three Indian princes to tea in one week. Officials high in the British government are frequent callers. The truly great Commissioner Booth Tucker, who gave up a high government post to enter the Salvation Army, comes and pads around the farm in his bare feet. Now and then the well-to-do American tourist hears about this remarkable farm and comes to visit it for curiosity's sake. Such people Mr. Higginbottom takes straight to Temptation Hill. "I bring rich people up here," he says, "to tempt them. I point out over there where I want a dormitory and there a chapel and there a science building."

From the Top Down, Instead of from the Bottom Up

It is a peculiar turn that Mr. Higginbottom's work has taken. His purpose in coming to India was to reach the lowest. Now it seems that he is to benefit the lowest by training the highest. Concerning this he says:

"God drove me into this leper work, into this agricultural work, into this practical contact with affairs when all my own inclinations and desires are somewhere else. I love to preach, yet I do very little of it out here. I love the quiet of the classroom with a few eager faces; to see life change in a small group or in the individual as the result of long-continued, patient teaching, fascinated me. Yet I am taken away from this. I thought the way out for the low-caste convert was through the agricultural settlements of these ignorant, humble folk. I prayed that their boys might come to us to be trained. But what do we find? Hardly a low-caste boy here. Little is being done for them because they refuse at present to be helped. Instead of students from the lowest of the low we have the highest of the high. Princes of royal blood, eager, keen, teachable, ready for any task, working as coolies and farm laborers, see the vision of better days for their own states. And it may be that God is going to help the low-caste through this method of reaching the native prince who rules over him. Instead of going on foot or on a bicycle from sweepers' quarters to sweepers' quarters, advising those who have no money, I find myself in king's palaces, advis-

ing men who have large resources and who are only waiting to see how they can be wisely guided to release these resources. I personally receive offers of land and money to locate in certain states that would make me a rich man were I to accept them. I find myself, without any of my seeking, a guest in the Viceregal Lodge advising the members of the Imperial Council, who tell me when this horrible war is over they are determined to try and help the poor, downtrodden, debt-cursed slave (in fact if not in name) of the soil of India. And so many times a day I ask God to keep me humble, to show me his will, to let me know why he has opened a door to missionary effort that has never been opened before. I ask him to let me know what it all means. I especially came out to India for work among the low-caste people of the villages. My heart is still there, waking and sleeping they have my thought, and yet it is among the high-caste, the princes, the wealthy of this land that I live my life and do my work."

Every target may be reached by a dozen different arrows. Every result may be obtained by a number of different methods. The result desired in the case of this one of India's many great problems is the emancipation of the land-slave so that he may live a clean, free, wholesome and, if he pleases, Christian life. Higginbottom's is one method and it is a good one. The methods of the other workers are valuable. But there are in India more than two hundred million victims of medieval agriculture. A poor half dozen or

so of missionary minds, no matter how brilliant, cannot handle a proposition like this. The reservoir of methods within the genius of man has scarcely been tapped. Here is a task to fire the imagination of the American farmer lad who wants his life-work to be something big, unique, and in the fullest sense Christian. No doubt all the agricultural missionaries of India would echo this daily prayer of Sam Higginbottom, "that the Lord of the harvest will send forth laborers equipped with plows and harrows and mowers and silos and good cattle to this great needy field of India."

VI

THE GOLDEN WHIRLPOOL

VI

THE GOLDEN WHIRLPOOL

There is a whirlpool in Africa which swallows twenty thousand men every year. Its name is Johannesburg.

Some people call it "The Golden City," because it is the center of the gold mining industry. Others call it "The University of Crime," because of the debauching influence it exerts upon the life of half a continent.

From a thousand miles north and a thousand miles south there come every year half a million natives from the simple, barbaric life of jungle and veld into the whirling experiences and allurements of this industrial center of Africa. The diseases and vices which belong to the white man's "civilization" are responsible for the death, annually, of twenty thousand of these half million recruits. Tens of thousands of others find their way back to their kraals or native villages, broken in health and morals, "civilized within an inch of hell," as one explorer has expressed it. Every man who returns civilized after this fashion spreads physical and moral corruption among his fellows. The result is that whole native populations are being caught in the back eddies of the whirlpool of Johannesburg.

The "Tout" Is the Modern Pied Piper

Life in the primitive kraal is a simple affair. There are few needs in the way of shelter and clothing, work is light, food is plain, and sunset means sleep. To be sure, there are many and terrible evils. But the evils of heathenism are a burden quite sufficient without adding to them the evils of the white man.

Into one of these sleepy kraals comes a "tout" or agent from the City of Gold. It is his business to round up laborers for the mines. There are many ways of doing this.

One tout was in the habit of dressing up in the most elegant style, topping with a silk hat, and driving through the villages in a splendid carriage behind a team of four fine horses to impress the natives with the splendor of the city from which he had come. Another made it a point to get the chief drunk and then by his authority he could obtain all the men he wanted. Highly colored stories are told of the wonders of the city. Added to this is the inducement that every man who consents to go receives a cash advance, varying anywhere from twenty-five to three hundred dollars. The native is only too ready to go into debt for the sake of having money to buy an extra wife or a few more cattle. Once in debt, of course he must go to the mines and work off his obligation. Thus, by one method or another, five hundred thousand natives every year are brought by trail, road, or railroad to the magic city.

The black man immediately exchanges his garb of

a strip of hide, or a few wildcat tails for cast-off European clothes and thus, almost before he has entered the white man's city, he is in danger of contracting the white man's diseases. He finds himself in a city of clanging electric cars, automobiles, and motorcycles, wonderful buildings called skyscrapers where many families live one on top of the other, picture-shows where you go into a room and look at a white curtain and presently the lights go out and you are whisked away in a dream to foreign lands, great signs about "Fifty-seven varieties" and "Post Toasties" and other signs that blink on and off at night—and what is that glassy place at the street corner? A saloon? We must investigate that!

Mother Earth's Great Jewel-Box

Little more than three decades ago herds of antelope roamed over the place where Johannesburg now stands. Then one day a farmer thought he saw a glint of yellow in a stone. Now a city has risen numbering two hundred and thirty-seven thousand inhabitants, and the gold reef which stretches along the Rand basin, forty miles east and forty miles west of Johannesburg, is being penetrated for gold by nearly one hundred different mining companies. In 1916 the production was \$192,200,000. The Rand now produces forty-one per cent. of the total gold output of the world. More than fifteen million dollars' worth of the yellow metal is shipped from this district to London every month.

A gold-mine is a very unromantic place. One might naturally expect that in a gold-mine he would see gold. The truth is, however, that the only thing that is not seen in a gold-mine is the gold itself. Everywhere, on the surface and underground, to a depth of almost a mile, one may see nothing but gray rock which is blasted loose, and carried up to the stamp-mill, where it is pounded down into a soft, gray mud. Then it passes through a variety of chemical processes to extract the gold. For every particle of gold recovered there are one hundred thousand particles of waste.

Off to the northeast of Johannesburg another Boer farmer believed that his farm also contained something of value. To-day where his stock used to graze there stands a diamond city and next to it is an immense pit, nearly half a mile wide and three hundred feet deep. There are no underground tunnels here as in the gold-mines. The pit is open to the light of the sun by day and to the glare of the search lamps on the surrounding cliffs by night.

The blue clay containing the precious gems is dynamited loose and is carried away to be ground, filtered and washed until only one per cent. of the original mass remains. But that is the precious one per cent.! Three men go over this residue, picking out the diamonds and dropping them into locked iron boxes.

Think of having wealth constantly passing through your hands at the rate of several hundred dollars a minute! These men handle every year seven million

dollars' worth of diamonds, the total annual output of the mine. It was here, by the way, that the famous Cullinan diamond was found, which was presented to King Edward by the Transvaal government. This stone measures four by two and one-half by one and one-half inches.

The native does not find the life in the mines quite what was pictured to him by the tout. He probably finds that the tout made false promises to him as to wages. He also discovers that no matter how proficient he may become he is not allowed to rise to positions such as those held by the white men, because of the opposition of the white man's labor union. If he suffers an accident, he does not receive adequate compensation. These mines, although British owned, are in some cases operated by American managers. It is a matter for regret that there does not seem to be here anything like the same attention to welfare that characterizes the American mining concerns in South America.

Johannesburg Radiates the "Great White Plague"

The greatest physical peril of all which the native has to face is *dust*. The inhalation of rock dust, irritating and cutting the lungs, furnishes the shortest road to tuberculosis. "Scientific counting of dust particles in measured volumes of air," says the *Engineering and Mining Journal*, speaking of the Rand Mines, "shows that after blasting, the dust in mine-air breathed by a miner in a minute contains 2,450,000,000

injurious particles. This number can be reduced by water sprays to ten million per minute." An investigation has revealed that approximately thirty-two per cent. of the miners are tubercular. The proportion rises to forty-eight per cent. among the machine drillers, who are most exposed to rock dust, and falls to twenty-one per cent. among those who have never done rock drilling.

The government and the mine owners have made a number of attempts to meet this problem. But there is some hesitation on the part of the mining companies because they do not wish to incur the expense which adequate preventive measures would involve. In the meantime, the disease of civilization, the dread white plague, is radiating from this center by every train and trail to spread rapidly throughout the native population of the southern half of Africa.

While dust predisposes to tuberculosis, bad living conditions promote and spread it. In connection with most mines the employees live in a so-called "compound," a collection of dormitories on the mine property. Four years ago Surgeon General W. C. Gorgas, of Panama Canal fame, made an investigation of sanitary conditions on the Rand.

"The most serious sanitary defect that I notice in the mines on the Rand," reports General Gorgas, "is the manner of housing the native. The quarters are much too crowded. He has in general 200 cubic feet of air space, which would give him fourteen feet of floor space. The general objection to such crowding is

that it causes the respired air to become vitiated. My great objection to such crowding is that it forces the occupants into close personal contact, and therefore largely increases the spread of any infectious disease. This applies particularly to pneumonia, tuberculosis, and cerebro-spinal meningitis. A large aggregation of men in one room is objectionable in itself. It is evident that if infection is introduced into a room containing a hundred men, it is more likely to affect a larger number than if introduced into a room containing six men."

Workers Live in Windowless Cells

Another report on living conditions has been made by Dr. A. J. Orenstein, who was associated with General Gorgas on the Canal Zone and later became Sanitation Superintendent of the Rand Mines, Limited. He visited some of the quarters occupied by natives in Johannesburg.

"The first place visited," he says, "was the 'yard' of a manufacturing firm not half a mile away from your imposing Town Hall. My guide approached the foreman with a request to see the quarters occupied by the natives employed there. The request was promptly granted. I was shown, in a corner of a large shed, a number of cells made of corrugated iron arranged in two stories each about 7 feet by 7 feet and about 7 feet in height. Only two of the dozen or so cells had windows—and these were merely holes covered with boards and fastened. I feel certain that,

were such places used for the keeping of animals, the Society for the Prevention of Cruelty to Animals would have no difficulty whatever in making out a case of cruelty in any court in the world. Yet in these cells human beings were living. In some of these, I was told, a man and woman lived, though I am sure I do not know how that is physically possible.

“In another place, a contractor’s yard, I saw boys housed in dark and filthy stalls, in rooms without windows and indescribably filthy, and one boy in a sort of a dog kennel into which one could get only by crawling on all fours. Four or five other quarters provided by various large firms in the town were visited, and, with a single exception, none of these could be considered fit habitations for human beings, no matter how low and degraded they might be.”

Of course the natural result from such a situation is not only tuberculosis and other diseases, but widespread conditions of vice. Commercialized vice is unknown to the primitive native. He learns it for the first time in this evil “university.”

Bottled Civilization

No less tragic is the manner in which the native is also receiving the white man’s culture in bottled form. According to Transvaal law it is a criminal offense to give or sell alcoholic liquor to a native. It is likewise illegal for a native to be in possession of liquor. That is to say, the law declares that white men may



From the simple life of the kraals half a million natives a year go to the mines of Johannesburg. Twenty thousand of these die within a year, and thousands who do survive physically are ruined morally by the white man's "civilization."

drink, but black men may not. Naturally, such a one-sided and illogical law cannot well be enforced. The result is that a tremendous illicit trade in liquor has grown up. The method is simple. A "liquor king" sends young white men around to the bottle stores to purchase bottles of liquor. They bring the liquor to the "king's" house, where it is poured into a bathtub, adulterated with methylated spirits, tobacco juice, pepper, and similar ingredients, and diluted with water. Then it is put up in other bottles and new labels are stuck on. Thus one bottle of the original poison becomes two of the still more evil poison. Then the liquor is distributed secretly to the natives who pay high prices for it.

More than six hundred whites in a year are convicted for selling liquor to the natives, and there are many others who are not caught, probably several times this number. In 1914 more than sixty per cent. of the white convicts were in jail because of illicit liquor traffic.

Drunkenness is much more common among gold-miners than among diamond miners. The reason is that the miners of gold are allowed to leave their compounds at certain times and wander abroad through the city on condition that they return when the curfew rings at nine o'clock. The diamond miners, however, are kept in "closed compounds" and are virtually prisoners. This is necessary to keep diamonds from being taken out. It is also quite effective in preventing liquor from coming in. A high fence

constantly stands between the employee and his "personal liberty."

If, after a few months, he wishes to quit his job, he is immediately the object of suspicion and explorers begin to go over him, hunting for hidden diamonds. He may have one hidden away in his hair or nose or mouth or in a decayed tooth, or perhaps it has been swallowed, or tucked under a finger nail or toe-nail or into a flesh wound. "Hence every laborer is locked in a cell for several days with hands shackled, given a course of physic, and thoroughly searched. But the fact that there is no shortage in labor supply and that many return time and again through many years shows that natives consider such servitude by no means unendurable."

Keeping Workers In and Liquor Out

There has been much criticism of the closed compound system because of the restraint it places upon the natives. However, this seems to be necessary in the diamond industry. Certain missionaries believe that the closed compound should be adopted in all the mines because of the advantage of greater sobriety and steadiness among the men who are thus not exposed to the liquor traffic. They are quick to add, however, that that is not going far enough. What the Rand needs is total prohibition—for whites and for natives alike. This was enforced at Panama, and General Gorgas places himself on record as strongly favoring its enforcement on the Rand.

One of the evil fruits of conditions on the Rand is the secret society known as "The Ninevites," which originated in the jails of the Rand. The Ninevites have their king, who has absolute power of life and death over every member of the organization. Frequently in the newspapers of Johannesburg one may see reports of mysterious killings. In many cases these murders have been committed by Ninevites under authority of their master. Any Ninevite who should refuse to commit the crime allotted to him would be killed. Such has been the result of the civilization of Johannesburg!

Even in the closed compounds of the diamond mines, where superficial investigation might seem to show that conditions were excellent, things are not quite as they seem.

"Be not deceived," says a Christian missionary out of his thorough knowledge of these compounds. "These fellows, donning European clothes and living on bread and butter and sardines, are not only unmitigated heathen, but they are viler heathen. They are annexing not only profanity, gambling, and drink (when obtainable) but also unmentionable vices unknown except through contact with white men. Reenforced carnality holds sway in the compounds."

Our black man, after his term of six months or a year in the "university" goes back to his kraal. He probably takes with him a derby hat, a pair of spats, an alarm clock, a bunch of old keys, a looking-glass, a necktie, a complete collection of English and Ameri-

can oaths, the love of liquor, a developed capacity for vice and crime, the beginnings of tuberculosis and other diseases, and an atheistic contempt for any laws, either material or spiritual.

Some one, was it Billy Sunday, has said: "It takes more than a varsity suit, a frat pin, a bulldog pipe, an egg hat, and a 'Rah, rah, rah!' to make a man." But many college graduates regard these things as the symbol of manhood. Likewise, the graduates of Africa's "University of crime" consider that to be civilized means simply to acquire the trashy trappings and vices of civilization. Every graduate who thus returns is an example to hundreds of others to whom he is only too glad to retail his new learning.

What are Christian missions doing in the face of this desperate situation?

There are a few missionaries scattered throughout central and southern Africa—not so many as there will be when the white man's conscience awakes and he tries to make up for the terrible wrong he has put upon the black man. In Johannesburg and on the Rand there are about fourteen mission societies at work. Of the half million persons who come and go in the course of a year, resulting in a constant population of about two hundred and eighty thousand, there are from twenty-five thousand to thirty thousand who attend religious services with fair regularity. There are not many compounds where there is not held at least one meeting on a Sunday. The missions are making a combined attack upon the liquor traffic and

are carrying on this campaign in a systematic and sensible way that ought to bring results.

Hard for Men to Stay Good in Bad Houses

There is not space here to consider in detail the work of the fourteen societies. Perhaps the clearest understanding of the mission problem involved in the Johannesburg situation may be had from a study of the task of one man, an outstanding missionary pioneer, Frederick B. Bridgman. This is a great man with a great faith. Up and down the Rand he goes on the wings of mercy (which is missionary for motorcycle), chugging into almost impossible situations and coming out with triumph, carrying sweetness and light into the blackest conditions.

He understands the connection between a man's body and his soul. He knows, for example, that it is hard for a good man to stay good if he lives in a bad house. At a lantern lecture which he gave on the housing problem, his audience became so excited that they began to shout: "Where is our sanitary inspector?" It happened that the sanitary inspector was sitting in the first row. At the end of the lecture he said to Dr. Bridgman that he had not realized that these conditions existed, and requested Bridgman to serve as honorary inspector, and gave him a badge!

Dr. Bridgman believes thoroughly in social service. He believes in good housing conditions, the prohibition of liquor, the education of the natives in football, tennis, and music, the use of wholesome moving pic-

tures, and other amusements to take the place of the existing devil-inspired recreations of Johannesburg.

But he believes still more vitally in the regenerating power of the gospel message itself. Hence, a great deal of his work is directly evangelistic. In thirty-five compounds he has regular preaching services, and in seven or eight of these he has chapels already erected. He describes interestingly the sort of work carried on in one of these compounds:

“During our look around we come to a yard blessed with some trees under whose shade some forty men, seated on boxes, are grouped about one of their number who stands with open book in hand. It is our Daniel and his little band. As this is a special day, the services continue from 9.30 to 4, saving an hour's intermission. Much time is given to an experience meeting when the roll of members and inquirers is called. On my last visit six were received on confession, after at least a year in the preparatory class. Two were disciplined, one for gambling, the other for immorality. Remembering their antecedents and this awful environment with every sin mentioned in the first chapter of Romans except murder, what a miracle that any should make even a start Christward!

“To have no chapel here is a serious handicap. Usually when part way through our service, wind, dust, and smoke or the yelling of a tribal dance make the position unendurable. So we retreat into one of the dormitories, a barn-like room, some 50 by 30 feet, the walls being lined with a two-story tier of bunks.”

Since many of the sixty roomers are not sympathetic, conditions are far from ideal. But for the hour of communion the mine provides a quiet room. And I am thankful to say that the Company has just promised that they will provide us with a chapel. An open-air rally with some two hundred and fifty listeners closes the day's work.

"During the week Preacher Likumbi holds day and night school to provide for both shifts, has Bible classes, prayer-meetings, and does personal work. While as yet our band numbers only fifty to sixty, this but partially represents the results. Many converts have gone as light-bearers to far-away kraals. As these return to work from time to time our company will gather strength."

Enough Fezis Would Save 'Africa

Johannesburg graduates many devils; but through the efforts of the missionaries, she also graduates not a few saints. They go back to their native communities carrying a new message of light and hope.

"The achievements of some of these converted savages read almost as a chapter in the Acts of the Apostles. Think of 'raw' heathen who have just found Jesus, and who have by real sacrifice managed to attend a night school for several months, returning to a pagan region to win their neighbors to Christ, to build churches, establish schools, and exemplify the standards of Christianity. This is just what some of our converts have done down in the fever-stricken

coast district four hundred miles east of Johannesburg. Seven chapels were here built by spontaneous native effort, and about two hundred men and women were baptized. Tragic to relate, this beautiful work for Christ is now endangered by want of missionary oversight.

“Another instance: Several years ago Fezi, while working in Johannesburg, renounced his evil ways and stood up in church to ‘choose the Lord.’ After laboriously learning to read the Testament and to write a prize-puzzle hand, Fezi returned to his kraal at Bushbuck Ridge, one of the darkest regions I know.

“The first thing Fezi did was to bring his brother, Tobi, to the Master. They have both been fishers of men ever since—home missionaries without pay. Last year, when visiting Bushbuck Ridge, nearly four hundred miles from Johannesburg, I found that as the result of their efforts chapels had been built, the extremes geographically being eighty miles apart. The congregations were composed of scores of persons neatly dressed, as well as of scantily clad heathen. One of the brothers is now taking a three-year course in the Mission’s Bible school in Natal, and the other brother expects to go later.

Missions the Only Murder Preventive

“Bushbuck Ridge is earnestly pleading for a missionary. These people just coming into the light show their good sense by frankly recognizing their limitations. They want help and guidance in their evan-



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Heaps of crushed ore from which the gold has been extracted in the crushing mill. Forty-one per cent. of the gold output of the world is produced on the Rand.

gelistic efforts. They themselves require Christian nurture. They are crying for schools. Bushbuck Ridge is strategically located in the heart of a populous district, one hundred miles each way, without a missionary. The English officials concerned assured me that they would welcome the planting of a mission station, and that they would do all possible to aid the enterprise. The magistrate remarked that while the arm of the law might now and then punish the culprit of a witchcraft murder, missions were the only preventive."

But what is a handful of missionaries and native converts among so many? Tremendous reinforcements must be given to all missionary work within a radius of a thousand miles of Johannesburg.

The mission schools now teaching farming and the trades have won the support of the government, and have shown what might be accomplished by a whole system of Christian institutions that shall have it as their object to transform the work as well as the workers of many races. After all, the South African tribesman is an agriculturalist and a herder. Show him how to be a better farmer and you go far toward saving him from the evils which overwhelm him and his family when he takes up the unnatural life of the miner.

One of the interesting schools of this type is Amanzimtoti Institute, "the Hampton of Natal." In its industrial department it gives vocational training for both boys and girls, with especial attention to agricul-

ture; in its normal department it prepares teachers for native primary schools throughout Natal and beyond; in its theological department it trains a native ministry for the churches of the region. "Church, school, shop, farm, and home—for all these positions in life the school aims to fit its pupils." How the graduates of the Institute impressed the employers into whose service they entered after graduation is shown by the replies sent in when these men were asked to give their opinions of the boys working for them. Here are some of the statements:

"The best boys I have." "If they left we don't know how we could get along without them." "Never any trouble—hard workers." "Rattling good boys." "A hundred times better than raw kaffirs." "Best shoemaker in the city, bar none." "Absolutely the best boy we ever struck in this country." "These two boys among the very best we have." "A good fellow, reliable, truthful, and obliging. For general conduct he could give us whites something to emulate." And other opinions in the same strain. The list of laudatory statements is before me, and to print it in full would require several pages.

Until we have provided many such centers where the young people of the South African tribes shall be educated in a Christian atmosphere for work that is suited to the circumstances of their life and where Christian leaders shall be prepared, the most powerful training institution in the land will continue to be the "university of crime."

You Gave Africa Your Worst, Now Give Your Best

Let us not think that we are altruistic in giving the help that is needed. It is *our* "civilization"—the civilization of the white man—that has cursed Africa. Our shiploads of liquor have been spreading drunkenness through half a continent. Our peculiar vices, formerly unknown to the natives of Africa, have been added to the already quite sufficient vices of the black man. Our white plague, tuberculosis, has laid its deadly blight upon the land.

We have given Africa our "civilization." The only thing left for us now to do, if we are to obey our loudly-speaking conscience, is to turn squarely about and offer Africa a civilization that needs no quotation marks, a genuine civilization, based on a vital Christianity.

Every distant jungle village needs real representatives of civilization—it does not matter whether they are called missionaries or not—men of high and sensible ideals, to teach the scientific growing of crops, that natives may not need to go to the cities to earn a fair living; to teach the art of reading, so that the realm of books and knowledge may be opened; to teach wholesome recreation, so that the life of the kraal may be made less irksome; to supplant the superstitious belief in devils with a stalwart faith in the one God before atheism has had a chance; to introduce the great and good forces of civilization, so that when the cankering influences come, the native life may be strong enough to resist them.

Johannesburg needs real representatives of civilization; strong, fearless men who will fight until they bring about absolute prohibition, the scouring out of vice, sanitation that will prevent tuberculosis, instruction that will build character and implant faith. The massing of native manhood on the Rand gives a unique opportunity for preaching the gospel. In Johannesburg the missionary has all Africa south of the Zambezi as his parish.

The challenge rings out to all people who wear white faces.

You have given Africa your worst. Now give her your best.

VII

PUTTING THE WORLD TO WORK

VII

PUTTING THE WORLD TO WORK

“Missionaries are such impracticable people. What the heathen need is something more than psalm-singing and theology. Sprinkling water on their heads and giving them a Scripture name has little value. They should be taught to use their hands—to ‘saw wood,’ in modern parlance.”

Those who offer such criticisms simply do not know of the extensive industrial mission movement of the present day. The watchword of the German monks of the middle ages, *Cruce et aratro*—“By the power of the cross and the plow”—is finding new significance in the twentieth century. In every land the gospel of the plow, the chisel, and the saw is steadily taking its place as a component part of the greater gospel.

The types of industrial education being carried on in different countries are as different as the countries themselves. The missionary must trim his cloth to fit his pattern. The missionaries of the United Presbyterian Church of North America at Gujranwala, India, found that it was necessary to make some provision for the orphans from the famine-stricken areas. They opened an orphanage—which soon logically became an industrial school where these boys might be

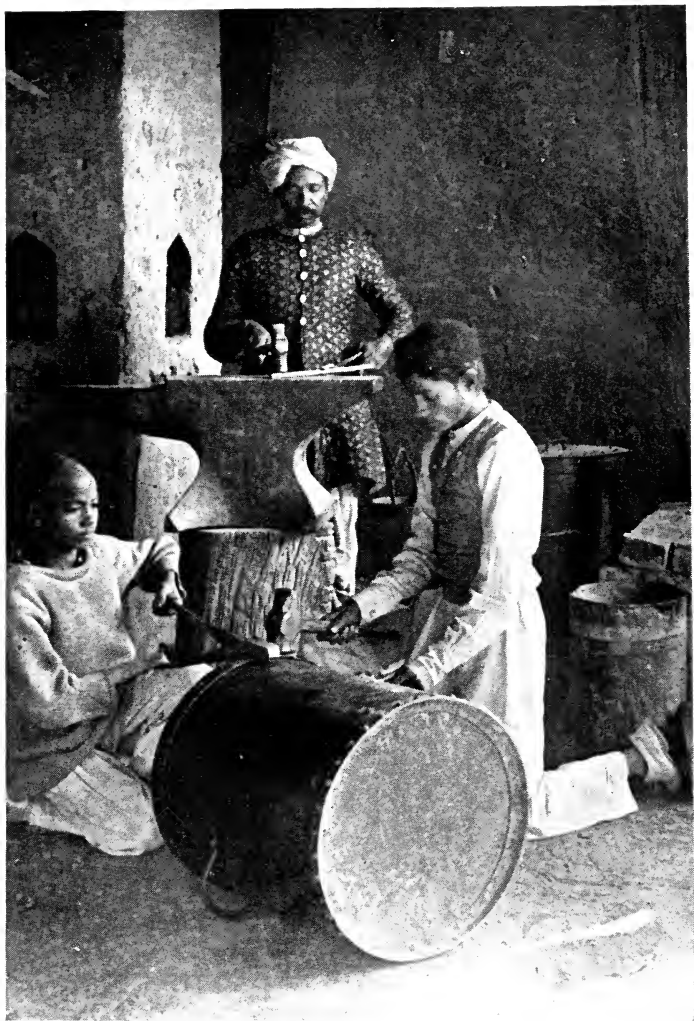
given both an industrial education and a religious education, fitting them to earn a competent livelihood and to become honorable, useful Christian men.

The Adaptable Missionary

A Scotch missionary in Formosa is teaching massage! The reason is that his students are blind and this is a profession they can easily follow. Thirty of his boys are now earning their living as masseurs. He teaches many other things, too—brush making, basket making, interpreting, knitting, and other activities, every subject for study being determined by the abilities of the students and the needs of the country.

In the Philippines, where American modernism has swept in, the Jaro Industrial School of the American Baptist Foreign Missionary Society is meeting the situation by teaching such modern subjects as telegraphy, stenography, typewriting, bookkeeping, electric wiring, and surveying.

In Africa the great industrial opportunity lies in agriculture. That is why the industrial mission at Old Umtali, in Rhodesia, teaches the native how to grow more grain and larger vegetables, and instructs him in animal husbandry, including the judging of stock for market purposes and knowledge of simple diseases common to animals in tropical countries. The students of this mission have started large irrigated gardens in about fifteen out-stations. Here green vegetables appear from three to five months earlier than the untrained natives can produce them.



Everything from road-building to needlework, from telegraphy to massage, is taught in industrial mission schools. This class, in a Cawnpore school, is developing competent blacksmiths.

In another part of Africa, at Kambini, the soil is especially suited to the growing of fruit-trees. Accordingly the Methodist Episcopal mission gives instruction in the cultivation of coconut-trees, oranges, apples, lemons, limes, peaches, grapefruit, papaws, lichi, mandarins, sweet limes, and rose-apples. Also peanuts and corn have been found to do well here, so they have been included in the curriculum.

Thus the missionary proves himself adaptable to local conditions. If the community has industrial need of one thing, he tries to furnish that one thing. If he finds himself in a community where there are many needs, he makes his industrial program as many-sided as possible. A good example of such many-sided activity is seen in the work at Elat in West Africa.

Not Much These Boys Couldn't Do

The following letter, relating the visit of the new French governor of Cameroun, who came to the colony after it had been won from the Germans, gives a good description of this remarkable station:

"The Captain of this district brought the new Governor of South Cameroun to visit the station. We took him first to the industrial school and showed him the chair class at work on all kinds of furniture. Right from the first I could see his surprise. He was not looking for such work. He examined the chairs, tables, sofas, and other odd pieces with great interest. He did not seem to understand how such work was

possible to these natives. I presented him with a chair and a mahogany-topped table.

"We went then to the hat class, where he saw the different kinds of hats. He was greatly interested in the tropical helmets we were making, and examined them in all the different stages. To see these helmets as neatly made and as strong as the average European-made article, and made, too, by black boys and in a mission, seemed to be too much for him.

"Then we went to the tailor class, where another surprise awaited him. He carefully examined the clothing, some of it as good as that he had on. We could see a change in his attitude toward us. Next, we visited the room where six boys were working in ivory and ebony. I gave him an ivory and ebony cane. From there we went to the pressroom, where he saw work that was being done for the government, and a small French primer for the French school. Then we went into the industrial school office, where he saw the walls and ceiling and all of the furniture made of mahogany. We went then to the sawmill and from there to the blacksmith shop, where the boys were repairing an automobile. Then we went to the carpenter shop. We could see that the man was completely taken aback.

"We then went up to our home, where Mrs. Hope had prepared refreshments. Then came the next surprise. The walls of different kinds of mahogany and other beautiful African woods, set him gazing. I called his attention to the fact that the whole house

and all the furniture in it was made by the boys in the carpenter class he had just seen.

"By that time he was willing to joke with us. The captain asked if that gramophone was not made in the industrial school. I assured him it was, and as I saw the governor looking at a bookcase made of teak-wood, full of books, I laughingly told him that those books were printed on the Mission press. By this time he was full of coffee and American cake, and really seemed to be enjoying himself.

"After a while he said it was time he was getting back to the government station. We told him he had not seen the mission yet, but only a little side line. We then showed him the girls' school, and afterwards the French school. He forgot all about his purpose in coming down to put out the large boys, and never said a word about it. Then he was taken to the big church. When he saw a building that would seat four thousand, he ventured the question: 'Was it ever full?' When told that there had been as many as four thousand on the outside that could not get in, that finished him. As we were walking to his horse, he said: 'You have a blessed work here with these native people.' Then, on leaving, he said to Mr. Johnston: 'I am greatly pleased with what I have seen here, and if at any time I can be of service to you in your work, you have only to command me.'"

A complete list of the industries taught in the industrial mission schools of the world would astound the uninformed American who supposes that the sole

occupation of a missionary is to stand under a palm-tree and preach. Here is only a partial list of the more common industrial subjects taught in the mission schools:

Architecture	Printing
Drafting	Bookbinding
Mechanical drawing	Farming
Building	Road building
Carpentry	Lumbering
Masonry	Domestic science
Wagon making	Laundering
Boat building	Bread making
Coffin making	Candy making
Furniture making	Canning
Wood-working and -carving	Soap making
Cane work	Needlework
Lock making	Embroidery
Brick and tile making	Spinning
Rug making	Weaving
Rope making	Basketry
Shoemaking	Massage
Tailoring	Stenography
Blacksmithing	Typewriting

Seven Reasons for Industrial Missions

Why this extensive industrial activity on the part of missions? Why should missionaries, who have been sent out to preach the living God, spend any part of their time in teaching industries?

There are at least seven good reasons. We shall take them up in detail in this chapter. Briefly, these seven reasons why industrial education should be a part of missionary endeavor are:

First, to promote the idea of the dignity of labor. Second, to advance moral integrity and character. Third, to raise the social plane and the standards of

living of the community. Fourth, to enable students, otherwise unable to attend school, to support themselves while getting an education. Fifth, to provide an opening for Christian teaching. Sixth, to make possible the self-support of native churches. Seventh, to avoid the gulf that has opened in certain Western countries between the laboring class and the church, and to make the faith of the Carpenter of Nazareth the faith of all workers the world over.

From every land comes testimony regarding the effect of industrial education in revolutionizing the native idea concerning the dignity of labor.

"This city is full of learned Christian loafers!" cried one missionary in India. Indian unrest is interpreted by President W. H. P. Faunce to be the direct product of Indian education in subjects having no relation to Indian life. "The dignity of labor is not generally understood by the Bengali," says a missionary, "a written examination being usually considered the only standard of attainment, and office work the only work permissible to a gentleman. To learn to do something, instead of merely saying how it can be done, would have the best effect on individual character."

The same story comes from China. "The Chinese need to develop a sense of shame for idleness. The attitude of the average Chinese family of middle class is to discourage its members who wish to learn a trade, for that would degrade them socially.

"Wrong notions about manual labor must be up-

rooted and practical training be given to boys and girls that will stand them in good stead in whatever walks of life they may engage."

The Aristocracy of White Hands

Africa, too, has its contempt for the toiler. A missionary to West Africa wrote: "When I came to Batanga we could hardly get men to work for us and the few who came were often sneered at and ridiculed because 'they sold their skin for money,' that is, they worked for wages. During the last few years more men were available than we could employ." At Budo a school was started about ten years ago, admittedly on a literary basis, but the missionary in charge soon discovered that there was great need for some sort of industrial work to supplement and in some cases counteract the effect of the academic work. The boys were taken to Lake Victoria to see the Uganda Railway. They were impressed, not only by the wisdom of the white man but even more by the way he worked with his hands. These boys, who were practically all sons of chiefs, came back ready and eager to do some sort of industrial work. Industrial courses were immediately established, and the natives of the countryside could scarcely believe their eyes when they saw chiefs' sons and chiefs themselves and even princes digging and planting and making roads, and doing it all without a word of complaint.

It was discovered in St. Andrew's Industrial School for Boys, conducted by the Protestant Episcopal

Church at Guadalajara, Mexico, that there was being developed "an aristocracy of white hands and polished shoes and high collars." So the school was moved out of the city to a farm and turned into an industrial and agricultural school. The change for the better in the mental attitude of the students was immediately noticeable.

This disdain for labor is found among almost every backward people. In fact, that is one great cause of their backwardness. It is found in the Philippines, although it is now rapidly disappearing as a result of the American occupation. "If I were compelled to give up one department of instruction apart from the Bible," states the president of Silliman Institute in the Philippines, "I would give up anything rather than the industrial work. This department gives an energy and strength to the other departments that can be gained in no other way. When Silliman was opened in 1901 the average boy considered it a disgrace to carry his grip up from the boat landing. A year ago, when we were enlarging the athletic field of the school, every boy in Silliman was out on the field with an ax, spade, hoe, or pickax, hard at work, and among them was the son of General Aguinaldo, and the sons of various provincial governors and rich men of the island, who had never done a day's work in their lives until they came to the school. Industrial work broadens a boy's outlook on life."

The dignifying and exalting of labor is then the first great and good reason for industrial education.

Making Lace and Character

Coherent with the first reason is the second—the advancement of moral integrity and character.

In the lace-making of Porto Rico the unlimited patience, aesthetic taste, and mathematical accuracy required for this work are found by the missionaries to be tremendous factors in the development of native character. “We find in them the necessary basis for systematic growth and religious zeal.”

The enormous Basel Mission in India, which operates a half dozen factories and employs many thousands of people, states as one of its chief reasons for existence its purpose to train the natives “in diligence, honesty, and steadiness of character.”

That the native fathers expect much of the missionaries when they send their boys to them for industrial training is to be seen in the following letter which a father wrote concerning his son, who was about to enter the Boys’ Boarding and Day School of the American Board at Sholapur, in western India:

“If you will kindly try to read his phrenology, physiognomy, and graphology, you must discover as the most promising boy to turn him out to be President of America as James Garfield, Abraham Lincoln, and others. May God inspire you to satisfy my high aspirations and bless us all in all respects in triumphs. Amen.”

The industrial mission schools do not always turn out Presidents, but they do turn out graduates who



The reindeer industry developed in various parts of Alaska by missionaries is making possible higher standards of living and of civilization among the Eskimos.

set formerly unheard-of standards in integrity and character.

Missions and the Standard of Living

The transformation effected by industrial missions in raising the social plane of whole peoples and in bettering the standards of living is so great as to defy measurement.

Churchill, of India, has invented a hand-loom which trebles the product of the work people. This means much for the economic betterment of the people when you consider that hand weaving is, next to agriculture, the chief industry of India. Mr. Churchill has refused to patent his invention, preferring that it should be free for the use of any one without the payment of royalty of any kind. The American Deccan Institute at Ahmednagar complains that so greatly does industrial teaching enhance the economic value of the students that "the school has been unable to keep its own pupils, on account of the high wages they can command on finishing their courses." Another mission has taken orphans from among the outcaste leather workers and has trained them in the making of really high-grade leather goods, with the result that they have had repeated calls for their students to come as teachers or as foremen in other institutions and factories, at wages three or four times the wages paid to the ordinary, unskilled laborer. This will undoubtedly have its reflex influence upon all this poverty-stricken group of leather workers. The ex-

ample set by experts from the mission school will be followed, more or less, by shoemakers and harness-makers throughout India. The improved standards of work will bring a larger remuneration and that, in turn, will mean improved standards of living.

Each Man for Himself Is the Heathen's Motto

Specialized industry is essentially a social institution. "Heathenism is essentially selfish," says F. Stanley Dart, of Rhodesia, Africa. "The native raises his own food in his own little garden, builds his own hut, and is largely dependent upon his own resources. He sees no reason for helping anybody else. Specialized industry changes all that. The carpenter works for the mason, and they both buy grain from the farmer. There is a hitherto unheard-of pride in work and a healthy competition in the things which make for thrift. The natural resources are utilized for the common good and a spirit of neighborliness and mutual interdependence springs up, which is a necessary prerequisite for social reform."

Large social reforms cannot take place among a people who live from hand to mouth. A man's income must increase to a decent living wage before he can give much attention to such matters as sanitation, housing, tuberculosis campaigns, better-babies contests, and public improvement societies. Therefore improved industries must be taught which will make this living wage possible.

If the missionary could use improved American ma-

chinery in teaching these industries, his task would be simplified, but he knows that the natives will not have such machinery to use when they get back to their villages. So, again, he must be adjustable. He must take the crude, native implements and figure out some way to make them produce bigger results. In the great mission plant at Lovedale, in Cape Colony, for example, very little power is used in the shops, since power will not be available to the natives afterward. Power would reduce the expenses and increase the production of the mission, but the graduate would be quite unable to make use of what he had learned. The proper policy of any industrial mission is "not production for production's sake, but production for education's sake."

One interesting mission, the Congo Evangelical Training Institution, in Kimpesse, Africa, realizes that the social cleaning-up and betterment of a community depends quite as much upon the women as upon the men. Accordingly, they require every man who comes to their school to bring with him his wife and family. Everything from carpentry and brick-making to gardening and housekeeping is taught. "The Institution, drawing as it does whole families from far-lying districts, and sending them out again prepared to build comfortable homes, live well, teach, nurse, and direct work of all kinds, is unique, and will intimately affect the living conditions and moral conditions of a vast area of the valley."

The direct economic and social value of industrial

teaching may be seen in the subjects of lectures regularly given in one industrial mission in Africa; tools necessary for a native carpenter—their cost and care; house planning for native Christians; the use of building materials found in the veld; molding of brick, and laying of fireplaces and chimneys; methods of protection against white ants, dampness, and decay; draining and sanitation; simple hardware and home-made substitutes; glazing; soldering; blacksmithing; the manufacture of glue; wood stains and finishes; rustic furniture; cane and rush seating; knots and new basketry weaves; mechanical aids, such as the wedge, pulley, and lever.”

An Industry that Saved a Race

In Labrador missions have saved the Eskimos from economic disaster. The missionaries have been instrumental in building up a large trade in seals and fish, which is being conducted on a profit-sharing basis, so that especially in the case of furs the fortunate trapper obtains the benefit of an advance in price in the London market. “Were it not for the trade conducted in connection with the missions, the Eskimos of Labrador would probably before this have become extinct, like their countrymen who formerly lived to the south.” In Alaska the missionaries performed a similar task by their active participation in the movement to introduce domesticated reindeer. Large reindeer herds have now been developed. They are bringing a sufficient financial return to enable the Eskimos

to enjoy the decencies of civilization, even in this desolate region.

Indian villages in our own West are being cleaned up by the power of—lace! One mission organization maintains lace schools on ten reservations. "This industry," says the report of the Association in charge, "has transformed the lives of Indian women undertaking it. They can readily be distinguished from the others by their neat appearance and bright and hopeful faces; indeed, Senator Dawes, of the Dawes Commission, stated at Lake Mohonk that one could recognize the villages where the lace was taught by the general cleanliness of the entire village." Another senator declared that he had never seen a happier lot of women, and described them as not only working steadily but actually laughing and chatting together, in strong contrast to the apathetic and hopeless squaws found there when the missions first came.

Industrial Experts Instead of Soldiers

The teaching of systematic industries would raise the social plane and standards of living of Mexico and make revolution a thing of the past. Says Henry Ford: "I believe the Mexican problem to be principally industrial. The Mexican never in his life has had a chance to work under decent, self-respecting conditions. He has been taught to hate work, the one thing that every one of us should love. Instead of soldiers, we should send industrial experts down there. Industrial experts from this country could do

great things for Mexico. Men like Luther Burbank should be generals of the army we send to Mexico. By thus solving her industrial problem, we also would solve her revolution problem. For Mexicans really busy at making a living, making comfort, making happiness, making homes, would have no time for making revolution."

The tremendous social results alone of industrial missions would be sufficient warrant for their continuance. And, after all, what is social that is not spiritual? Cleaner bodies, better homes, greater interdependence and brotherhood, more skilled hands, and clearer brains lead the way to high ideals and spiritual vision.

Working Their Way Through School

Related to the social and economic value of industrial missions is the provision thereby made for great numbers of poor boys and girls to furnish, in labor, the equivalent of the tuition that they cannot pay and thus get an education which they otherwise could not afford.

The problem and the manner of meeting it is described by C. M. Deal, manager of the industrial department of the Songdo Higher Common School in Chosen. "A boy who has reached the proper age to go off to boarding-school is an asset to the family, and it is just as difficult to spare the only ox as the boy from home. It is not only impossible for the average young man to pay his way through school,

but it is very difficult to leave home at all without sending back something to help support the family. So it is very difficult to get many boarding students into our school without either paying their way or providing a way for them to earn it. Formerly we supported these students with scholarships secured in America. During four years we spent six thousand dollars in this way. This helped about fifty boys to stay in school, but many of these were no better off after receiving the help than they were before, because of the deleterious effect of being dependent on others and getting something for nothing. Our industrial department is doing away entirely with this expense. It is helping more students than did the six thousand dollars spent in scholarships, and doing it without the deleterious effect that was inherent in the other system. At the same time, the education secured is worth twice as much to them. It is being done without a cent of cost to the Board of Missions. To illustrate the difference in the old and new method, from an economic or efficiency standpoint: If now we had this six thousand dollars spent in scholarships during the period of four years, to invest in our industrial department, we could enable not only fifty students for four years, but from sixty to one hundred students each year for an indefinite period, to get a much better education than they were formerly receiving. Not only so, but at any time, years after the investment was made, its economic value would be more than the original investment."

Reaching the Heart Through the Hands

The fifth reason and, from the missionary viewpoint, a most important reason for industrial mission work, is that it provides an opening for Christian teaching.

There are many people who cannot easily be won by approaching them directly with the gospel message. We must first, in the words of Dr. Grenfell, "do something for them that they will understand." The bloodthirsty Moros, for example, are considered by many missionaries as a people who can best be reached by the industrial appeal. Bishop Brent states: "It would be futile at this juncture, except in unusual circumstances, to preach to the Moro. The history of his race has been such as to close his mind to Christian appeal. We must live our Christianity with him. The hospital, the school, the playground, must be our pulpit."

Much of the success of the great mission of the American Presbyterian Church at Elat, Africa, is credited to the industrial features which, in many cases, have opened the way to the good-will of the people. Sixteen years ago there was no church there. To-day there are nine churches. Eighteen years ago there was not a confessing Christian. To-day there are eight thousand church-members in regular standing, and more than twice that number on the waiting list! The testimony of Elat is, that from the standpoint of church-membership, industrial missions pay a thousand fold.



The adaptable missionary teaches stenography, architecture, and bookbinding, where they are needed, but among the broad pastures of Rhodesia he teaches sheep-judging.

True Christian zeal, of the consuming kind, can come out of an industrial mission school. Tuting and Riking were the first two boys converted in Silliman Institute in the Philippines. They hurried home, during vacation, to tell the new story to their family. To-day, in their town, is a church of over one thousand members. Christianity has spread abroad through the valley back of the town among the non-Christian tribes. Ten Sunday-schools have grown up. Industrial missions opened the way.

Another student of Silliman contracted tuberculosis and was sent up to an island-plateau to regain his health. He was expected to rest and do nothing. But the teaching of Silliman made him see on that plateau an opportunity in the face of which he could not rest. After a few months his unceasing labor resulted in his death. But he left behind him forty converts, and the church which he left there has been growing ever since.

During the last school year one hundred Silliman boys were converted. Remember that this is avowedly an industrial school. At meetings held in October one hundred and fifty-eight promised to serve Christ. Twenty to thirty boys go out every Sunday to hold meetings in the towns and villages throughout that region. After working all the week, many of them walk fourteen miles or more on Sunday to preach the gospel.

Every well-operated industrial mission school can tell similar stories. The training of the hand has

proved to be an invaluable approach to the training of heart and soul.

The Native Who Does Not Earn Cannot Give

The sixth reason is a very vital one from the standpoint of mission policy. Mission churches should in time become self-supporting. Americans and Europeans cannot permanently finance the churches on the mission field. But these churches can never become self-supporting so long as their members are too poor to assume the responsibility for church expenses. Industrial missions step in at this point and, by equipping the native with the ability to earn a fair living wage and contribute adequately to his church, the self-support of mission churches is made possible, thus liberating the funds of the mission boards to be used in the development of new work.

That this actually happens may be seen by the experiment in Cameroun, where, in 1904, the Mission Board was practically supporting the entire work. "In that year a secretary visited the field, and as a result the native church agreed to a yearly ten per cent. reduction in the Board's appropriation, with the understanding that the native church would increase its offerings by that amount until it became self-supporting. The mission did its part and at the end of the probation period had accomplished its purpose. The secretary showed a schedule for Cameroun and pointed to a school, the annual expenses of which were two thousand dollars; nineteen hundred dollars of this

was provided by the people themselves. A very important factor in this, however, was the introduction of industrial schools which trained the native to work and gave him the opportunity to become a revenue-producing agent.”¹

A most fascinating account of how a helpless and dependent people were lifted to the ability to support themselves and their church is told by F. W. Walker, of New Guinea, who has been in charge of the remarkable mission organization, the Papuan Industries, Limited.

“As I had only just arrived from a district where a totally different language was spoken, I was compelled to speak to them in ‘pidgin’ English, with which they are familiar in these islands.

“Thumbing the Bible before me in orthodox style, I said: ‘This book he speaka, suppose a fellar no work, no catch him kaikai (food) for wife and picaninny belonga him, God angry longa that fellar, all same fellar no go church, no belieb about God.’ Continuing, I said: ‘You people alonga this place you think you good fellar, you think God berry glad longa this island, cos you kum alonga church all de time, sing an’ pray plenty. God not glad alonga you; He very angry. What for? ’Cos wife and picaninny belonga you he hungry, he cry, cry, cry all de time. You big, strong man here too much lazy, you no work, an’ this book he speaka suppose a fellar no work, no catch ’im kaikai for wife and picaninny belonga ’im, God angry

¹ *Spirit of Missions*, September 1915, p. 606.

longa that fellar all same fellar no go church and no belieb about God.' "

Idleness Rusts a Knife—Why Not a Man?

Then, as Mr. Walker relates, taking his knife out of his pocket, he held it up before them and said: "You look this knife. White man he make 'im. What for he make 'im? To lie down all de time, do nothing? No! White man make knife for work, for to do something. Suppose he work, he keep good. Suppose he no work, one year, two year, three year, by-um-bye you look that knife. He no more good; he all rusty; spoilt altogether. All same man. God make you fellar; He gib you strong body. What for? To sleep all de time? No! For work. Suppose you work, you keep good. Suppose you no work—you too much lazy—by-um-bye you all same knife; rusty; spoilt altogether. Strong belonga you he finish.

"God been put in de water all round this island plenty pearl-shell, plenty tortoise-shell, plenty beche-de-mer (an edible sea-slug for which a great demand exists in China). He gib arm, leg, belonga you go swim an' get 'im. What for you no get a boat (vessel), an' get plenty thing stop alonga salt water? Then you go sell 'im longa Thursday Island; get plenty money; buy flour, rice, biscuit, tin-a-meat. Wife, picaninny belonga you no more hungry, no more cry, altogether fellar kum alonga church, sing an' pray an' thank God, that proper fashion."

After the service was over Mr. Walker went to the

mission-house and he had not been there many minutes when there was a knock at the door, and when he opened it he found a great crowd—all the men of the congregation in fact—gathered there. The man who had knocked at the door, and who was standing a little in front of the others, said: "Master, all fellar here want to have a yarn alonga you 'bout that talk you been make in de church."

Pleased to find that his words had evidently made an impression upon them, Mr. Walker invited them to come in. They filled the small room, and many had to remain outside, crowding round the door and every available window.

The White Man Cries, "More, More, More!"

When they had all settled in their places the spokesman stood up, and very respectfully addressed Mr. Walker. He said: "Master, you speaka this morning, you say: 'What for me fellar no get a boat, no go work for kaikai for wife and picaninny, belonga me fellar?' Master, all fellar this island like to get a boat an' work. Can't do that. Three fellar been try. First one fellar he go alonga storekeeper. He say: 'Storekeeper, suppose me work; get plenty pearl-shell for you; you gib me boat?' Storekeeper say: 'Yes, suppose you work proper, me gib you boat.' That fellar he say: 'Me work proper, Master.' So storekeeper he gib 'im boat. That fellar he work good. Plenty brudder an' friend belonga 'im he help 'im. Altogether man he work longa time, get plenty shell.

He take 'im longa storekeeper, he say: 'Master, you look! Plenty shell; enuff pay for that boat, eh?' Storekeeper, he look, he say: 'No! You go get more.' Altogether man he go work again, longa time. By-um-bye he get plenty shell again. He take 'im longa storekeeper. He say: 'Enuff now pay for that boat, Master? That boat not a good boat, Master.' All same white man chuck away. White man no like gib good boat longa native. Well, that storekeeper he look that shell, he say: 'No, not enuff yet; you go get more.' All de time like that—'More! More! More!' White man never finish make that talk. By-um-bye that native he tired. He say: 'No good work for white man. He make fool o' me all de time. He too much gammon. More! More! More! That talk never finish.' By-um-bye he sat down. No more work, and that white man get wild, seize de boat, an' native lose everything. Anudder man he try. All de same. 'More! More! More!' White man never finish that talk, an' by-um-bye he lose everything. All same nudder fellar. One more fellar he try; he think might be he can finish pay. No fear! He all same. Now all man this island he say: 'No good work for white man. Too much he make a fool o' me fellar, more better sit down do nothing.'"

Mr. Walker says that he realized at once that what was required was not sermons but practical help. A sermon was of as little use as a discourse on "The Proper Place of Man" to a lot of poor fellows floundering in a bog. What was clearly needed was a

friendly hand to help them out of their difficulty. "Is not this the fast (or service) that I have chosen; to loose the bonds of wickedness, and to let the oppressed go free, and that ye break every yoke?" was impressed upon him. Accordingly he resolved to secure a boat for them, as he had a little money of his own available at the time.

Like Pilgrims of Old, They First Built a Church

Mr. Walker purchased a suitable boat, and arranged with the resident magistrate at Thursday Island, the Hon. John Douglas, C.M.G., who took a deep interest in the matter, to pass the whole business connected with the purchase of a boat by him, and the subsequent payment by the natives, through his hands. Every one said that he was very foolish to risk his money. They said the natives were lazy and good for nothing, and would never work to pay off the debt, and so on. However, to the amazement of all who had seen them under the old conditions, inspired by new hope and confidence they worked with an energy such as no one previously had believed them to be capable of, and in eighteen months the liability of one hundred and twenty pounds was completely paid off, and they were well on their feet. At the end of that time they had the good fortune to discover a large number of ingots of copper, supposed by Mr. Douglas to have been jettisoned from some old Portuguese exploring ship hundreds of years ago. Mr. Douglas negotiated the sale of this copper, and obtained the

sum of six hundred pounds hard cash for it. The first act of the natives after receiving this was to vote over three hundred pounds of it to the building of a beautiful and substantial church, which stands on their island to-day as a mark of their gratitude to God for the prosperity which had come to them as the result of a little practical Christian help. The contributions of these people to the London Missionary Society, which previously had only been a few pounds, amounted in 1904 to two hundred and seven pounds for the one year. In other words, they are now practically a self-supporting Christian community.

The betterment of industrial conditions may not be the quickest method, but it is the soundest and most enduring method of making possible a self-supporting and self-respecting Christian church.

A Church That Knows No Classes

The final tremendous argument for industrial missions is that they will help to prevent the formation of that gulf between the laboring class and the church which is found so often in certain Western countries. The missionaries are alive to such a peril, and much of the advocacy of industrial missions is on this score. "The experience of the church in the West in relation to the employed classes," writes J. Merle Davis from Japan, "need not and should not be repeated in the Far East. In America and in England and in the continent of Europe, through the inadequate occupation of the industrial field by the Christian forces in the

early stages of development, there has grown a deep and almost uncrossable gulf between the laboring man and the church of Christ. The impression has been fixed among the working classes that the church is the property and the privilege of invested capital and of the employer class; that Christianity, as expressed in the great city churches and their varied institutions, has nothing to do with the man who works.”¹

A very clear and practical example of just how Christianity may influence and mold a national industry is presented by Joseph Bailie in his account of the Commercial Press of Shanghai. “Three compositors in the Presbyterian Mission Press, one named Hsia, and two named Bao, took it into their heads in the year 1891 to open a printing place of their own. They began in a little room of about twelve feet by twelve, doing their own work. This was the beginning of the Commercial Press, a firm that now sells about two million dollars’ worth of its own printed material every year. The whole is conducted on Christian principles. Day schools are provided for the children of the employees and night schools for the employees themselves. No philanthropic cause in Shanghai lacks the support of the Commercial Press. Here is Christianity of the real leavening type.

The Imprint of Christianity upon Industry

“A great many people objected that running a business concern like the Presbyterian Mission Press ought

¹ *The Christian Movement in the Japanese Empire*, 1917, p. 292.

to be left for outsiders, and that the duty of the missionary was to preach the gospel. But the printing business of China has now the stamp of Christianity upon it, and its influence for good is incalculable. Can we not get hold of the other industries by selecting common-sense Christian tanners, hat makers, dyers, spinners, and others, who will come out and live clean, honest lives as missionaries? It is not necessary to preach; the whole life will be a sermon. . . . Can we not get men to go out to begin such industries who are not only excellent, each in his own line, but who will stamp their Christian characters on their employees? If steel plants, spinning mills, weaving factories, tanneries, factories for making hats, and other industrial enterprises were founded by men who felt their responsibilities to live in Christ, we would have the stamp of our Master put not only on the workmen but also on the capitalists."

The shoemakers and printers and bricklayers and machinists of the world need the fellowship of the Carpenter of Nazareth. They must have it. The Christian church must give it to them. We have been in our high pulpit in the cathedral, preaching Christ as the King of kings. We have not had much to say of him as a laboring man. And when "the working classes" began to swarm in the vicinity of our church, we have moved our church up-town. All that must be changed. The great errand of the Christian church throughout the world to-day is to bear a definite message of hope and help to the world's workers.

The gospel of the cross and the gospel of the plow cannot longer remain two separate gospels. They must become one.

The name of Christ must be stamped on every trowel and chisel, lathe and loom, so that every man who labors shall realize that the tools in his hand are sacred, and the work he is doing divine.

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